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*"I cannot help plead to my countrymen, at every opportunity, to cherish all that is manly and noble in the military profession, because Peace is enervating and no man is wise enough to foretell when soldiers may be in demand again."*—GENERAL SHERMAN.

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FIELD TRAINING FOR THE UNITED STATES ARMY.

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IN the period of time between the close of the Civil War and the outbreak of our war with Spain the mobile elements of our army—the cavalry, infantry and field-artillery—were stationed generally upon the frontier. That is to say, either along the Canadian or Mexican borders or else upon that interior frontier which marked the separation of the more thickly settled communities from those wherein the Indians were segregated. Guarding the advancing line of white settlements and the various railroads building through the Indian country kept our cavalry and infantry, and sometimes the field-artillery, fairly well employed. Here was a valuable school of training for officers and men. Long periods of field work were not infrequent, and often the entire winter, as well as the summer, months were spent away from garrison. The possibility of being called out at any time made it imperative that commands should be in readiness at all times to take the field on short notice. Transportation had to be ready and had to be sufficient, and the many details which go to make up completeness of equipment were not suffered to fall into neglect.

Toward the end of the period named the Indian question made less and less demand upon our soldiers. There was a transition from the remote frontier posts to larger posts built near the great cities, and as troops were gradually assembled

in the latter the invaluable opportunities for field training, so abundant in the old order of things, began to be lost to the service. And even as to those who remained at the remoter posts the comparative quiet of the Indians after 1891 left them more and more to that condition of garrison repose so fatal to the efficiency of troops. The era of post routine had arrived with its perfunctory drills on the parade ground, its monotonous ceremonies, its fringe of saloons with all the debasing influences which cluster about this lowest type of the grog-shop.

An appreciation of the new conditions soon began to manifest itself in various quarters. It was realized that the ideal school furnished in the past by the frontier service, wherein men learned effectively the soldier's trade, had closed its doors never to reopen. It naturally followed that officers began to make the best of the new situation, and a beginning was made at such field exercises and training as the restricted reservations and their immediate neighborhoods would permit. Considerable progress had been made along these new lines when the increasing discord between Spain and the United States culminated in war. This war, but more especially, and much more extensively, the Philippine insurrection which followed so closely upon its heels, gave once again the opportunity for the Regular Army to acquire education in the best of all schools—actual field-service.

The insurrection is over; the bulk of our mobile forces is again assembled in posts within the United States proper, and even that part stationed in the Philippine Archipelago is gathered in garrisons more or less permanent, and more and more does the daily life of the soldier abroad approximate that of his brother at home.

To the lay mind it may not at once appear why soldiers gathered at stations in the United States or abroad are not favorably situated for anything resembling complete training. Such, however, is the fact, as will readily appear upon consideration of garrison conditions in connection with the subject of the proper education of the soldier. The type of post established for sheltering our forces is substantially uniform. The reservations are small, varying from a few acres to many thousands, but those exceeding one thousand acres are exceptional. Upon the acquired tract the buildings are erected, and while the plan varies somewhat the result is usually about the same; that is, a cluster of buildings around a central parade ground. Some



of the buildings are barracks for the men, some quarters for the officers and still others go to make up the necessary quota for administration purposes, storehouses, etc.

Many of the posts are in the vicinity of large cities and, consequently, are planted in the midst of a settled community; that means denial of the adjacent land for purposes of military instruction, which must, perforce, be confined to the narrow limits of the reservation, and often to the parade ground. Posts of the type herein described are Fort Sheridan, twenty-five miles from Chicago, area 632 acres; Fort Snelling, seven miles from St. Paul, Minn., area 1531 acres; Fort Thomas, four miles from Cincinnati, area 1111 acres; Fort Sam Houston at San Antonio, Tex., area 267 acres; Plattsburg Barracks, at Plattsburg, N. Y., area 679 acres; Fort Ethan Allen, five miles from Burlington, Vt., area 761 acres. These are merely cited by way of example. They are all large garrisons composed of cavalry, field-artillery or infantry, one or two, or sometimes three of the arms being represented. Types of larger reservations are Fort Assiniboine, Mont., 220,000 acres; Fort Sill, Okla., 77,800 acres; Fort Riley, Kan., 19,089 acres; Fort Clark, Tex., 3965 acres and Fort D. A. Russell, Wyo., 4512 acres.

Let us examine a little now the daily life and the possibilities of instruction in garrison. The soldier lives in a well-lighted, well-heated barrack. His meals are prepared by the company cook in a modern kitchen and set out for him in the dining-room at regular hours. He has an iron bunk with woven wire mattress and a comfortable bed. The bathroom is handy. There is usually a company barber and a company tailor. He has his drills upon the parade ground, his ceremonies, his guard duty and some fatigue work. But take it all in all his daily life is much that of a civilian boarding near-by. He is habitually garbed in uniform, but when not actually engaged upon some duty he disposes of his leisure hours as do the workmen of the community about him. The ever-present saloon affords him a place to drink if he has the inclination and the money. Sometimes he has credit; not infrequently he sells his clothing and so gets a supply of money temporarily and at tremendous interest. He plays baseball, goes to the theater, and his whole existence is differentiated very little from that led by men of his class in the community at large. Does that make him a soldier? To one who looks

upon the parade ground during the drill hour it might seem that his education was progressing; so it is, perhaps, but the limitations imposed by his way of life and his environment prevent effectually his progress beyond the mere rudiments of his profession. The close-order drill, proficiency in the ceremonies, the care of his person and his equipment, some knowledge of tent pitching, perhaps some lessons in cooking and in the formal duties of sentinels, are undoubtedly grounded in the man. The apparent monotony of it is not without compensation, for all the while he is acquiring discipline he is subordinating his will to the will of another; he is learning the difficult lesson of doing that which another tells him to do without hesitation and without question. In short, prompt obedience, the corner-stone of genuine discipline, is being formed in him and established as a habit. All this is exceedingly valuable; it is the beginning of his education, and it is an indispensable stage in his development. But is it all? Is it enough? If persevered in for three years, the full term of his enlistment, does it make the man a finished soldier? The answer is, No. The most important part is yet to come, and here we reach the point where our system fails. Under it, it is quite possible for a man thus half trained to go back to civil life without ever having made a good day's march or begun, even, that practical part of his education which fundamentally differentiates the trained and resourceful soldier from the amateur in uniform.

To give our men practical work in the field, under conditions akin, as near as may be, to those of war, and as soon as his garrison training will permit, is the problem now before us.

A great deal of absolutely necessary preliminary training, as indicated heretofore, can be given, and should be given, in garrison; but that done, we must take our material afield and there complete the transformation from a healthy man into a genuine soldier. He must be separated from the comfortable bed, the modern kitchen, the porcelain bath tub and the furnace heat. He must put on his field kit, pack the wagon and be off to live under conditions bearing a close relation to those which in time of war must surround him. The march and the camp and again the march persevered in afford the natural and indispensable opportunity for teaching practically all that which in garrison could only be prepared for, not actually done. Men thus have to bear the burden of the

kit, to care for the feet, to control their thirst, to pack and unpack their own belongings and the wagons, to make and strike tent, to put the camp in order, to start fires under difficulty, to make themselves comfortable for the night, let the weather be as it may. These things the soldier must learn; he picks up valuable knowledge every day, often unconsciously; he is, in fact, learning in the great school of experience those things he must have knowledge of and many of which he can become master of in no other way.

It is the fashion now of some to lay great stress on the necessity of educating the soldier, but too often it is apparent that a set of books as the means, and a stock of theoretical knowledge as the end, is what is meant. There is time enough for both sorts of training in the course of the year and abundance of time in the term of an enlistment to train the raw recruit into a thorough soldier if we go about it the right way. But if we permit the man to spend practically all his time in garrison, while he may master the rudiments of his profession, he cannot get beyond the elementary stage, and may take his discharge and revert to his civilian status devoid of that practical knowledge grounded on his own experience, which is the real soldier's most valuable asset.

How then is the problem to be solved? How can we give our men the field training absolutely essential to their development? The answer, as before indicated, is that he must be severed from his post life and must go forth to live in tents under the open sky. Here, however, there confronts us at once a practical difficulty. If the garrison be put in march from many, indeed from most, of our posts, the moment the boundary of the reservation is passed the command is limited to the highway. Troops may be marched and doubtless, if arrangements are made in advance, places for nightly camps may be secured, but not always without difficulty. Hemmed in by the fences on either side, under the jealous eyes of the proprietors of land, marching may be done and nothing else. Now marching is highly beneficial. It hardens the men; it enables them to become accustomed to their burdens and, if camps sites are had, the experience of making and breaking camp is invaluable. Even without the latter experience, and when the march is merely out of the post and back again by nightfall, some benefit is gained in physique, some little knowledge added to the previous store. But this is far from enough.

There must be target-practice; there must be exercises and maneuvers requiring a varied and a more extensive terrain. There should be a progressive and complete schedule of exercises covering all the ordinary duties and experiences of war, such as attack and defense of convoys, advance and rear guard formations, reconnoitering, etc. All these may be most readily worked in along with the day's march, but manifestly they are all prohibited when a command is limited to the public road. There must be, too, attack and defense of positions, complete instruction in extended order over varied ground, night marches and night attacks, road sketching and reporting and many kindred exercises simulating, as far as practicable, the conditions of actual campaigning. All require ground; and the more extensive the ground, the more varied its features, the more readily can variety of exercises be secured, and new conditions dealt with and new problems devised.

Training of this sort is indispensable. Without it our soldiering is more or less of a failure. We may satisfy the eye at parade or please the multitude on the Fourth of July with a sham battle; but if transferred suddenly to a field where actual war was on our shortcomings would be soon manifested and our self-confidence much impaired.

There is a remedy for present conditions not difficult to apply, but still needing persistent effort on the part of those who are responsible for the efficiency of our troops. The United States is still a sparsely peopled land. Unimproved tracts still exist in every quarter of the country extensive enough for military purposes, and in all respects suitable for camps and for every variety of field training within the knowledge of the profession. There should not be a moment's delay in setting about this important task. A policy should be agreed upon, a plan adopted, and every effort made year by year to compass the desired end. That end should be the acquisition by the United States for military purposes of large tracts of land so situated as to serve for the place of field training for a group of posts. These should be selected with care and with a view to serving all the arms. Exclusive jurisdiction should be obtained and a sufficient and pure water supply arranged for. The year should be then divided into two parts corresponding to two kinds of training, and a systematic course entered upon which should know no interruption save what might come from actual war.

One part of the year should then be devoted to garrison training; the other to field training. Whatever part of the soldier's education, including, of course, his schoolroom work, can be advantageously and properly taught in the post environment should be assigned to this portion of the year. In the other portion the whole garrison should take the field, proceed by marching to the designated rendezvous and then go into camp. Other garrisons pertaining to the same group would join; an officer of suitable rank would command the camp, and a system of field exercises and general field training should be adopted and carried through upon a prearranged program.

I have sufficiently indicated, already, how the soldier's experience here would round out his knowledge and make of him the kind of man we need when war really confronts us. Apart from that, it may be affirmed that the soldier would be a more contented man and the officer better off in every way.

We hear much of desertions. Numberless theories as to the causes have been advanced. The causes are certainly many and diverse; some may be reached and cured—some are peculiar to the individual man and are beyond all help. Undoubtedly the monotony of garrison life, conjoined to its abundant temptations, has much to do with producing that frame of mind and that combination of circumstances which produce desertions. If five or six months of each year were spent upon the road and in camps, with a variety and abundance of interesting occupation, a healthy state of mind unfavorable to desertion would result. This is not mere theory; no one who has seen a command leave a garrison on a practice march with the prospect of a considerable absence can have failed to be struck by the singular cheerfulness of the men. Whatever happens becomes a joke. Wet or dry, hot or cold, nothing effectually dampens the good spirit that prevails generally. This is quite a different attitude of mind from that which results from a spell in garrison. Men become critical about their food, their number of nights off guard; grumbling is plentiful and dissatisfaction easily produced. In the field there is left behind the customary fringe of saloons, and a wholesome tone of mind follows upon days of honest fatigue and nights of sound sleep. Desertions are rare from commands on the march or in camp by comparison with the number occurring in posts. In brief, so far as the enlisted man is

concerned, there can be no doubt that field-service fosters contentment and keeps the mind satisfied, while garrison life has rather the opposite effect.

These annual outings would serve incidentally another useful governmental purpose by affording the War Department ample opportunities to test new equipment, and the best way of transporting and using all the various articles with which a body of troops in campaign must be supplied. There has recently been adopted, for example, a set of intrenching tools for foot troops. It is a question as to just how these may be carried and used most advantageously and whether the types fixed upon are really the best obtainable. The annual camps here advocated would permit thorough tests of these, and any considerable fault in their manufacture or method of attachment would certainly be exposed, and needful remedies suggested.

The acquisition and retention of adequate military reservations in this country presents an extraordinary record of improvidence and want of professional foresight. In the days when the public domain was practically unlimited, and all that was needed to secure a suitable reservation was the setting aside of sufficient ground out of the public stock, no prospective glance to see what the needs might be seems ever to have been taken with the view of adopting a policy and adhering thereto. Temporary needs and conditions caused the establishment of posts, which was inevitable; and like considerations caused the abandonment or paring down of reservations, which was foolish. It may be that there are still suitable tracts of public land which ought to be withdrawn and set aside for military purposes; but our once extensive choice is narrowed now, and it is probable that the Government will have to pay a good price for that which it might once have had for the keeping.

That the time was considered ripe for adopting a definite policy with respect to our military posts, and adhering to it for the future, is evidenced by the fact that in 1901 a board of general officers was appointed by the War Department "to consider and report upon the location and distribution of military posts required for the proper accommodation, instruction, and training of the army as organized under the Act of February 2, 1901, not including coast fortifications. The board will make recommendations in detail as to which



of the existing posts should be retained or abandoned, and of those retained which, if any, should be enlarged and to what extent; and the location, size and character of such new posts as may be necessary, having due regard in all its recommendations to the proper distribution of the different arms of the service based upon strategic, sanitary and economical considerations. The board will also formulate and submit a project for the location, examinations and surveys to be made for the permanent grounds provided for by Section 35 of the Act of February 2, 1901."

The board entered upon its labors and rendered an exhaustive report in 1902, which was transmitted to Congress and printed as a public document. It recommended some of our posts to be held as temporary stations and therefore marked them for ultimate abandonment; others were designated as permanent, and still other new ones were recommended to be established. In all cases the size and composition of the garrison were indicated. It further recommended for the four permanent and extensive camp sites one in the vicinity of Chickamauga Park, Georgia; one in the Conewago Valley, Pa.; one at Fort Riley, Kan. and one at the Nacimiento Ranch, California. The establishment of four permanent camp sites for field instruction of regulars and militia had been contemplated by the provision in Section 35 of the Act approved February 2, 1901. Nothing further looking to the carrying out of that intention along the lines recommended by the board has been done, and it is well that the project was abandoned, because four camp sites are insufficient. We need many more, but on a smaller scale, where instruction can be carried on every day without the assemblage of very large bodies and without a tremendous bill for transportation, and a consequent appeal to Congress for large appropriations.

The United States has experimented with annual maneuvers on a large scale in 1903 at West Point, Ky., and at Fort Riley Kan., and again, in 1904, at Manassas, Va. These seem to have been suggested by similar large assemblages held in the continental nations of Europe. It is not believed that the size of our army or its distribution permit such plans to be carried out advantageously. They were experiments, perhaps, costly certainly, and the writer does not believe that they were of much profit to the great mass of those engaged, although the



experience was probably valuable for the general officers and some of the staff-officers who participated. The acquisition of four large tracts alone would tend to similar uses, *i. e.*, large bodies assembled for brief periods at great expense, and with relatively small benefit to those participating. What the army needs is a continuous diet of regular field training, not an occasional spectacular banquet of the Manassas type.

By way of illustrating how the desired instruction may be arranged for and carried out, let us take the group of posts where infantry and cavalry are stationed between Lake Erie and the Atlantic. They are in order from west to east: Fort Porter, garrison three companies of infantry; Fort Niagara, one battalion of infantry; Fort Ontario, one battalion of infantry; Madison Barracks, Headquarters and two battalions of infantry; Plattsburg Barracks, one regiment of infantry; Fort Ethan Allen, Vt., one regiment of cavalry and a battalion of field-artillery; Fort Jay, New York Harbor, 1 battalion of infantry. If the Government had a reservation in the north-central part of New York State, say in Herkimer County, it would be practicable to assemble from the posts just enumerated a brigade of infantry, a regiment of cavalry and a battalion of field-artillery. Here is a mixed command adapted to many exercises and capable of employment in the solution of a great variety of military problems. A general officer should command it, and the march thither and return would afford numberless and varied opportunities for instruction, as well as for a thorough toughening of the individual, and the field kit being borne, its burden would become familiar to every foot soldier.

In this particular grouping, which is merely cited by way of example, a part of the journey to camp might be made otherwise than by marching. The battalion from Fort Jay, New York Harbor, might, for instance, be carried by boat up the Hudson, and thence march overland to the rendezvous. Or that particular fort might be grouped with others to the south and have its camp in Maryland or Virginia.

To carry out the system herein outlined many more than four permanent camp sites are needed, and their location as well as their size and number would depend upon the group of posts to which the camps would be appurtenant. Money will be needed, but it may be remarked that we have money, and that Congress has already, in the legislation contained in

Section 35 of the Act of February 2, 1901, indicated its approval of the idea that the Government needs permanent camp sites. If the sums expended on the large gatherings at West Point, Ky., Fort Riley and Manassas had been invested along the lines here indicated, we should have already made a good start toward the realization of a rational and permanent scheme. It is not unlikely that in parts of the United States proper there may still be, as there certainly are in the Philippines and Alaska, tracts of Government land suited by their extent, character and location to fulfil the requirements of permanent military maneuver sites. If this be so no time should be lost in selecting and setting them aside for this purpose. The urgent necessity for them is emphasized by the efforts now being made by the War Department to have instruction camps during the coming summer and fall months. In drawing up a scheme to carry out this purpose the lack of suitable rendezvous becomes at once apparent, and because the Government does not own the proper lands the Department has been driven to select places ill-adapted to its purpose; locations, in fact, which go largely to defeat the very purpose had in view when the plan was undertaken, and the defects of which can only be palliated by having adjacent land. Plattsburg Barracks is such a place, so is Indianapolis, because neither reservation is large enough to afford anything more than ground enough on which to encamp the troops to be assembled.

To recapitulate briefly the plan which it has been the attempt to explain in this paper, it must be pointed out first that it embraces two distinct phases of training—one of the garrison, another of the camp. The first is preliminary and preparatory to the second, and will habitually be pursued in the winter months. The field or camp training will follow in the summer and autumn, and will include considerable marches from the posts to the rendezvous and return.

It is assumed that the permanent posts, are or will be, settled upon, their size determined, and the composition of each garrison fixed. This done, steps would have to be taken involving the co-operation of Congress by which for each group of posts there would be acquired a tract of land adapted by its size, by the character of its terrain and by its location to serve the purpose of a camp of instruction for the garrisons assigned

to it. Here target-practice and every possible variety of military instruction would be systematically pursued.

One of the obvious criticisms of the large maneuvers hitherto attempted is that the men are not fitted to benefit by the problems undertaken because of a deficiency in their previous elementary training. That perhaps applies more forcibly to the militia, but to some extent it may apply to the regulars as well unless some of our posts are provided with more land. Fort Thomas, Kentucky, for example, is no place at present for adequate garrison instruction. It lacks the ground; the acres in that reservation are so cut up that it is a difficult task to impart a thorough knowledge of even the close-order drill. Concurrent, then, with the plan here submitted, there should be an enlargement, if possible, of those permanent posts whose present areas are too restricted for their quota of troops.

In the report submitted by the Board of General Officers convened in 1901, and referred to above, it is observed that some posts of one or two companies are recommended for continuance. Presumably, there were special reasons in the particular cases, but it is believed that for permanent occupation no garrison of less than a battalion or squadron should be maintained. Three general types would meet our needs; battalion posts, regimental posts and brigade posts, or stations garrisoned by several arms and equivalent to a brigade. With garrisons of less strength than a battalion any considerable training becomes impracticable, routine work and the care of the plant occupying the time and attention of the men. But posts of battalion size are valuable as affording experience in command to majors and, moreover, for other reasons we cannot expect to discontinue them. Regimental commands are logically the next in sequence. We have many posts of that size, and both for administration and training they are most desirable. Mixed commands equivalent to a brigade and straight brigade garrisons will give opportunity for our brigadier-generals to command troops in peace time—to become acquainted with the three arms while compelling the elements of the mobile forces to know and to understand each other. A few only of this type are needed, and the tendency of growth in that direction is so marked already that with a policy distinctly and continuously working toward that end there would be no difficulty, within a few years, in obtaining

the necessary number with ground sufficient for the garrison training.

If we had a graduated system of posts, as here suggested, coupled with a progressive scheme of garrison and field training, the soldier who spent an enlistment in the United States Army would know his trade. When such a man took his discharge and vanished to the eye in the mass of his fellow citizens, that part of the military power of the country represented in his person would not be wholly lost to the country; it would simply become latent. He would not have the scholastic finish to qualify him for the duties of the pedagogue, but he would have in him the elements of good citizenship and a potential usefulness to his country well worth the time and money spent on him in his soldier days.



## THE DUTIES OF CAVALRY PRECEDING A GENERAL ENGAGEMENT, AS DEVELOPED BY TWO RECENT WARS.

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AFTER superficial perusal of the voluminous literature with which we have been favored by officers who have actually witnessed new and remarkable battle tactics of infantry and field-artillery, it was with certain misgivings that we undertook a critical study of the war duties of an arm which appeared to have given the military world singularly few *new* tactical lessons of value, in either the Anglo-Boer or the Russo-Japanese conflicts.

Up to the period covered by these recent wars, the tactical standards of cavalry operations were those of the Civil and Franco-Prussian Wars; nay, some famous Continental writers harked back to the days of Frederick and Napoleon. But in these days of progress in the mechanical arts, thirty years is a long period for tactics to stand still—a period which has seen the marvelous development of magazine, flat-trajectory long-range rifles, of smokeless powder, of quick-fire, shield-protected field-guns firing improved shrapnel, and of electrical communication, which, keeping pace with the tactical dispersion of troops, brings all subordinate units in touch with the commander-in-chief at a far-distant point in rear.

The cavalry world had every reason to believe that these two recent wars would clear up many conflicting opinions as to the modern use of cavalry. But the South-African conflict, fought over an abnormal terrain between an ill-trained, ill-led British cavalry and a meager, but exceedingly mobile, Boer mounted infantry, has furnished indeterminate data only. In the Far East, operating over a more normal territory, a numerous but ill-trained and poorly officered mass of Cossacks has timidly opposed the steady advance of the Japanese; while a poorly horsed minority of Japanese cavalry, well trained in the services of exploration and protection, have rarely dared to venture beyond supporting distance of their splendid infantry

and artillery. It was too precious in its reconnoitering duties to risk disaster by seeking combat, when its first duty was that of observation.

#### PERSONNEL AND ORGANIZATION.

As organization must precede operation, we cannot refrain from touching upon a few most important incidents in cavalry organization.

Nothing has stood out more clearly in these latter-day wars than the fact that cavalry personnel, both in officers and men, must be of a standard higher than has ever heretofore been reached, to be entirely successful under modern conditions. The present dispersion of cavalry requires rare physical condition to successfully resist fatigue, and it is a matter of experience that this dispersion also renders discipline more difficult to enforce. The successful use of the arm in the service of security and information has become so difficult and complex, that the highest intelligence is necessary.

In his evidence before the Esher Commission of Inquiry on the war in South Africa, Lieut.-Gen. Sir Ian Hamilton remarked:

I would preface these remarks by venturing to express my opinion that it is more difficult to be a good cavalryman than to attain distinction in any other branch of our service. Although every care may be taken to appoint only commanders who seem to fulfil all peace requirements, at least two or three of these apparently fully qualified men will certainly fail—perhaps with lamentable results in war.

It may be remarked as further evidencing the impression created in Great Britain by the cavalry experiences of the Boer War, that the British War Office has issued an order giving the preference in selections for cavalry service to the cadets *graduating highest at the Royal Military College*, justifying their action in this innovation by the statement that in wars of to-day there falls to the cavalry officer of all grades, duties of such weighty importance that they must possess the highest professional knowledge in addition to suitable mental and physical ability.

South Africa was a graveyard for the reputations of many cavalry commanders, and a most humiliating experience to the British public in their previous estimate of the personnel of the rank and file.

Turning to Manchuria, the apathy and inactivity of General Rennenkampf's force has caused constant wonder to those who

predicted great things for the Cossack cavalry; and while Mishchenko exhibited a few of the qualities of a cavalry leader in his raid on Niuchuang last January, he failed of his mission and produced no decisive effect on the result of the war.

Had they possessed a leader worthy of the name, says the *Times* correspondent, of the Russian cavalry, at the Battle of Mukden, they would easily have found an admirable field for their activity upon Nogi's front, flank and rear, and might have done much to restore the fortunes of the fight, no matter what character of fighting they preferred.

But the Russian cavalry commander held his large cavalry force southwest of Mukden without reconnoitering the Japanese left, so that General Nogi's decisive movement northward was unheralded and unopposed. The Russian troopers were, like their brothers of the infantry, heavy-witted peasantry, lacking in initiative and judgment and timid of responsibility. The Cossack of the terrible retreat from Moscow had deteriorated in morale, and his military training, had through a long period of peace, been allowed to lapse.

In contradistinction, the personnel of the Japanese cavalry was striking. Such was the importance attributed to their duties by the Japanese General Staff that they were selected from the most intelligent of the Japanese conscripts, and brought by persistent and laborious training, in spite of a lack of natural horsemanship, to a high degree of efficiency. In no previous war perhaps has the advantage of cavalry training been so thoroughly demonstrated as in this competition of the Japanese *versus* Russian cavalry. Although out-numbered by the Russians six to one, the Japanese cavalry performed their duties with such intelligence, judgment and precision, that life in rear of the advanced Japanese cavalry has been described by the *London Times* correspondent as a positive sinecure.

If we seek for testimony as to the absolute necessity of previous training for modern cavalry, and the uselessness of attempting to improvise cavalry from raw levies, call them what you will—militia, volunteers or yeomanry—at the declaration of war, the statement of Colonel Haig, Chief of Staff of General French's command and one of the most highly-accomplished officers of the British Army, is significant: "How long," he was asked by the Chairman of the Royal Commission investigating the South-African War, "would you say it takes to make an average recruit a good cavalry soldier?"



"I take it, that in four months you ought to train him sufficiently to ride in ranks; he is then able to charge, but I do not think he will have the intellectual knowledge to go on service. I think in a year's time he would be quite fit to take the field, but his scouting would be at fault."

"When would he be fit for that?"

"I do not think under three years."

In other words, the intelligence service required of cavalry under present conditions is so important, onerous and difficult, that hastily imparted, but necessarily superficial instruction after war is declared is almost valueless. It is an unquestioned fact that the wide dispersion of cavalry units over other arms of the service requires a higher standard of discipline, because the troopers are very frequently left to their own initiative, and are not under the eyes of their officers or even of their non-commissioned officers. Again, never before was such high physical training required of cavalry, because the *size* of modern armies and the *range* of modern guns requires greater flank marches by cavalry and oftentimes greater dispersion between units.

Altogether, both the more recent wars emphasize the fact that the most intelligent and physically fit soldiers are required for modern cavalry; and that never before was previous training in horsemanship, scouting and marksmanship of so much importance.

The sudden expansion of the British cavalry at the outset of the South African War brought into the ranks men totally untrained in horsemanship. The mounted infantry was even worse.

In some remarks before the Royal United Service Institution of Great Britain, Maj.-Gen. R. S. S. Baden-Powell, Inspector-General of Cavalry, stated as a conclusion of his experience during the Boer War:

It is at the outset that you want *all* your cavalry, and therefore it has to be prepared in peace time. Again, we must not be led into the error of thinking that improvised corps of volunteers, however willing, are any use as cavalry at first. They cannot be used to supply the place of cavalry that is deficient in numbers and quality. We have innumerable instances of both in our own campaign in South Africa, and in the very similar campaign of the War of the Secession. These gave us convincing proofs that it does not do to use improvised irregular or volunteer cavalry in the place of real cavalry, trained in peace time in the art of war.

The English, like ourselves, had no good system of expansion to a war footing, and this applied in the cavalry to both men and horses. In a war near home the cavalry is needed at the outset, as General Baden-Powell has said, to cover the mobilization and seize strategic points across the hostile frontier. In an over sea expedition the cavalry must, if practicable, *precede* the main infantry force, in order to secure a brief rest and acclimatization. Witness the exhaustion after debarkation of the cavalry in our China Relief Expedition. In the South-African operations the British infantry preceded the cavalry, and in consequence, the cavalry horses were, upon debarkation, rushed to the front without proper rest, without proper attention to their feet and without proper organization. Not until the battle of Bloemfontein was it apparent to the British commanders that disjointed cavalry organization at the beginning of a war is usually fruitless, a fact which was impressed upon us in our own War of the Rebellion. The British cavalry was for the first time united into two brigades two days before Bloemfontein, and entered that engagement with brand new staffs, and with little cohesion between squadrons.

The lesson to be learned is that cavalry should either be kept on a war footing, usually an impracticable condition, or be capable of immediate expansion when war is imminent. Again, it is unwise, to say the least, to wait until cavalry is actually in the presence of the enemy for organization into higher units of command. It should be united, occasionally at least, in time of peace; and the General Staff should have the brigade and division commanders, with complete staff, tentatively selected, and if practicable, given practical opportunity for experience in peace maneuvers.

It is gratifying to American officers to perceive how many cavalry lessons of the present day hark back to our great Civil War.

In 1866 Maj.-Gen. Emory Upton inspected the principal armies of Europe and Asia. One of the conclusions in his highly valuable report, reads:

Keeping in mind the fact that the 60,000 to 80,000 cavalry maintained from the beginning to the end of the Rebellion did not become really efficient till the Battle of Beverly Ford, in 1863, after it had been trained for nearly two years; that the expense of supporting it is double, if not treble, as expensive as infantry, we ought, from our own experience, to follow the example of European nations, and as far

as practicable maintain our future cavalry either on a war footing or else on a basis capable of such expansion as to meet quickly the demands of war.

Now as to modern cavalry organization, General Pelet-Narbonne, one of Germany's foremost authorities on the subject, believes two regiments of cavalry to each army corps necessary for tactical exploration; and for strategic exploration at least a division of cavalry of twenty-four active squadrons indispensable for each two army corps. He prefers that instead of assigning the cavalry of tactical exploration as divisional cavalry it be concentrated into a brigade of two regiments and placed under the corps commander. To carry out this plan and yet provide a certain proportion of divisional cavalry would require an increase in the German cavalry—a project which General Pelet-Narbonne proposes to meet with gradual increase in the cavalry arm each year, as in the creation of a naval fleet.

This proposition is mentioned as showing the latest trend of thought in regard to cavalry organization, in Germany as well as in France and England. In this connection we will quote from an address of Maj.-Gen. R. S. S. Baden-Powell, May 16, 1905:

The Germans now are realizing, after all their study, that cavalry is required more than ever. To their 485 squadrons they are now adding twenty-eight new ones, and the proportion they thus make with cavalry as compared with infantry is about five squadrons to every six battalions of infantry. France has about three squadrons to every five battalions. Russia has seven squadrons to every twelve battalions, and our (British) proportion is about nine squadrons to twenty-two battalions.

#### HORSE SUPPLY.

One of the most emphatic lessons of modern wars has been the appalling loss of horseflesh, which, other things being equal, appears to vary directly with the training of the troopers. We do not have to go to the Boer War for shameful statistics of such losses. We must not forget that during the first two years of the Civil War 284,000 horses were furnished our cavalry when the maximum number of cavalymen in the field at any one time during this period did not exceed 60,000 men.

The British Remount Department, which excited so much adverse criticism by its shortcomings during the Boer War, actually furnished from December, 1899, to January, 1902,

(about two years), 216,863 horses and 94,030 mules, when the British War Office had calculated on a maximum of only 25,000 animals, which would be required in case of war.

In December, 1900, what with casualties and the increasing use of mounted men in South Africa, the demand rose to the enormous number of 9600 animals per month, the normal purchase in time of peace having been but 2500 per month. The Remount Department naturally broke down under the strain.

If we return to the Russo-Japanese War we find a different state of affairs. The Russian Cossacks were mounted, Colonel Schuyler tells us, on small tough horses from the Transbaikai region, resembling Chinese ponies, except Cossacks of the Don, who rode small, well-made horses of Arab breeding. A nation of natural horsemen, no matter what may have been their shortcomings as cavalry fighters, there does not appear to have been an undue loss of horseflesh, and the losses were systematically met by levies on the resources of Mongolia. Again, the animals were acclimated, accustomed to the food of the country and trained for long marches in all kinds of weather.

On the other hand, the Japanese, as we have already remarked, were not natural horsemen. They utterly lack that bond of sympathy between the real cavalryman and his mount. But, as in other things, the Japanese cavalry soldier appears to have overcome natural disadvantages by careful study of his shortcomings, and by skilfully applying the proper remedy wherever needed. With little or no sentiment for their mounts, they looked upon the question as a business proposition which required economy of the animals powers of endurance; and the *London Times* correspondent tells us that during fifteen months in the field, their requisitions for remounts amounted to but 50 per cent as compared with the British expenditure in their recent great war of 250 per cent for their cavalry, and of 400 per cent for the mounted infantry and irregulars.

One logical effect of the frightful British losses in horseflesh was their reduction of the load which the horse was required to carry; and just as this principle is now being agitated in several armies, with respect to the pack of the infantry soldier, we believe it is a question of growing importance to cavalry. It will be discussed later under "cavalry equipment."

Although during the Boer War strong factors of loss may

be found in hasty purchases of poor animals, in the weakening effect of a long sea voyage and in the foolish policy which rushed remounts to the front after debarkation, before becoming conditioned and oftentimes before being shod, the great lessons to be learned in this regard were the losses *due to lack of previous training of cavalry officers and men*, and the absolute necessity of an efficient system of supplying reserves of trained men and horses.

Such importance do the Germans attach to this question that they consider as worthy of the name, only cavalry which has been organized and trained in peace times, and they decry the employment of cavalry reserve units raised at the outbreak of war and mounted on requisitioned horses. In its appalling loss of horseflesh, as well as in absolute inefficiency, the uselessness of attempting to depend upon militia or yeomanry reserves is, for the cavalry arm at least, a fair deduction from the Boer War. Several British volunteer regiments were reduced to 100 horses, and the idea that by mixing regulars with the volunteers the latter would learn their duties, was proven fallacious.

Considerable losses in remounts are inevitable in modern wars; for aside from the increasing vulnerability of cavalry due to improvements in arms, greater distances to be traversed in both the tactical and strategic rôles, oftentimes with insufficient forage, will cause great fatigue.

Remount depots have become as essentially necessary for cavalry in time of war as recruit depots for all classes of soldiers. Casualties among the horses must be filled promptly, or cavalry loses its morale and efficiency. Regimental depots at the base, where dismounted troopers may refit, remount and rejoin the colors, and where lame and broken-down animals may be built up and conditioned, is not only a measure of great economy, but an absolute necessity in modern wars of any magnitude.

The British cavalry were ill-trained in what they are pleased to call "horsemastership," and had no remount depots worthy of the name. The Japanese cavalry subordinated many physical deficiencies to machine-like training; and carefully organized base depots as part of their comprehensive supply system. The results to the cavalry speak for themselves.

## ARMS AND EQUIPMENT.

Although Germany (entire cavalry), France (seventeen dragoon regiments), Italy (the first ten cavalry regiments), Russia (the Don-Orenburg and Ural Cossacks), still retain the lance as part of the cavalry equipment, both the Boer and Russo-Japanese Wars have shown that it is unsuited for reconnaissance work, is superfluous for dismounted duty, and is inferior to the saber in a *mêlée*.

If there is one thing borne out by modern wars, it is that the cavalryman of to-day must be armed with a first-class firearm, and, within certain limits, as to weight and length, the nearer this arm approaches the range and accuracy of the infantry rifle, the greater will the independence of cavalry be assured. There are those who fear that arming the cavalry with such a weapon will destroy mounted initiative, such as was manifested by the Cossacks, and indeed in certain periods of the South-African War by the Boers also. But it is a tactical conclusion of unquestioned soundness that under present conditions cavalry must be prepared to do much dismounted fighting, and perception of the infrequent occasion when mounted charges will be effective must be a matter of education and training.

The great disadvantage of being outranged by the firearm of opposing infantry was an experience which early confronted the British cavalry in South Africa, and, it may be said, gave rise to the creation of mounted infantry—a force which found great favor with the British. The Mauser rifle of the Africans was a superior weapon to both the Lee-Metford rifle and carbine.

Lieut-Gen. Sir Charles Warren has stated:

The Boers had only to keep 2000 yards from our cavalry on the hills, and they could shoot them down with impunity or surround them. Practically, it may be said, that no advance could be made through a hilly country by cavalry armed with this weapon (the carbine) \* \* \* \*

When the history of the war is written, it will be found that the cavalry were unable to exercise their real functions in the hilly country of Natal, until after they had been served out with the infantry rifle.

Field-Marshal Lord Roberts also had very decided opinions on this subject. He stated before the Esher Commission:

The principal weapon that all our mounted men must have is the rifle. For the cavalryman—hussar or dragoon—the rifle must be the

principal weapon and he must have a sword as well \* \* \*

\* \* \* I hope to be able to prove to the satisfaction of cavalry, from history, that under the existing conditions of warfare the rifle must necessarily be the cavalry soldier's principal weapon, and the sword the weapon they may have to use occasionally. They should, of course, be perfect in both.

Both Japanese and Russian cavalry have been armed with excellent firearms, the Russians having the rifle with bayonet attached; and it was probably the fact that the Cossacks had discarded both lances and sabers that not a single well-authenticated case of shock action is recorded throughout the war. The Russian cavalry always dismounted for combat, and the Japanese cavalry, come from a nation of sword-worshippers, were forced by inferiority of numbers to do likewise. Hence we find the Japanese cavalry's battle allowance of ammunition per man was increased from thirty-six to 150 rounds; and each cavalry brigade was furnished with its own ammunition train instead of being supplied, as formerly, from the nearest infantry column. It seems clearly proven that in future wars the ammunition allowance of cavalry in its principal function alone—the service of security and information—will exceed expectations. It points to the absolute necessity of high development of fire discipline and of target-practice.

The questions of weight of the firearm (carbine or rifle), of carrying it on the horse or on the trooper's back, as did both Japanese and Russian, and of the amount of ammunition allowance, are all questions so seriously affecting the mobility of cavalry, as to require very careful study.

One of the most significant cavalry lessons developed by the Boer War is the absolute necessity of lightening the horse's load to a minimum, in order that the cavalry may fulfil modern cavalry requirements. Modern reconnaissances requires passage over vast distances, frequently as night operations, and the size of present-day armies involves wide flanking movements.

Maj.-Gen. Sir John French, the one cavalry leader of distinction evolved by the Boer War, has said:

The recent war proved that with the extended operations and increased mobility now necessary, it is impossible for the fighting men of any branch to be loaded up with the paraphernalia necessary for their warmth and sustenance at night. Articles such as picket-pegs, blankets, mess tins, cooking utensils, forage and rations must be carried by some light transport, either wheeled or pack, according to the nature of the theater of war.



It would seem that the Russian cavalry went to the extreme limit of lightening the weight of their saddle-packs and increasing that of their auxiliary transportation, for we read that the chief cause of the failure of General Mishchenko's raid on the Japanese communications, January 8-17, 1905, was the huge convoy in the shape of 1500 *bât* animals. The mobility of the cavalry was consequently destroyed, the rate of march being reduced to a walk, and consequently all chance of surprising the Japanese was dissipated.

It is interesting to note in connection with the mobility of cavalry that as a result of his Boer War experience Colonel Haig, General French's Chief of Staff, has recommended the following allowance of weights for cavalry:

	lbs.	oz.	lbs.	oz.
1. Carried on horse: horse equipments.....	48	2	...	..
arms.....	14	8	...	..
trooper, equipped....	182	0	244	10
2. Carried on troop cart (four to a squadron); bankets, three days' rations, light entrenching tools.....	484	..	...	..
3. Carried on spare horse: one to a troop, four to a squadron, cooking-pots, picket-rope and pegs.....	84	..	...	..
4. Carried on two squadron wagons: tents, underclothing, horseshoes, forage, and rations.....	6,732	..	...	..
5. Ammunition: On soldier 100.....	rounds, 100	per rifle.	..	..
on four packhorses 8800....	" 50	" "	..	..
on one S. A. A. Cart 13,200	" 73	" "	..	..
Total.....	223 rounds per rifle.			
6. Tools and explosives on one pack horse per squadron.				
7. Signaling equipment on one packhorse per squadron:				
Total transportation per squadron:				
Ten pack horses,				
Four troop carts,				
Two squadron wagons,				
One small arms ammunition cart.				

To resume the discussion of arms, the lessons of the past two wars still point to the usefulness of the saber. To be sure the British cavalry discarded both saber and lance early in the Boer War, because the character of the country and the skill of their opponents was such that these weapons appeared to be in the way. But before the end of the war most cavalry commanders wished for an auxiliary weapon, and the testimony

of numerous officers before the Esher Commission is overwhelmingly in favor of retaining a thrusting saber.\*

As is well known, the Japanese cavalry carried both saber and bayonet and the Russian cavalry the bayonet—the lance having been left in Russia. That the Japanese would not have occasion to use the saber would be a foregone conclusion when we consider their paucity of numbers, about 6000 against 30,000 Russian cavalry. The necessity for husbanding this little force for the important duties of security and information was most apparent to the Japanese General Staff, and we find few instances of their assuming risk of disaster.

On the other hand, the lethargic handling of the Russian cavalry is, as we have already noted, partly attributed to their tactical employment as mounted infantry. The *Times* correspondent tells us of the Cossacks, that,

In peace they are armed with the lance and sword, and in war they are asked to fight with rifle and bayonet. \* \* \*

\* \* \* Shock tactics in these days refer to the shock of cavalry against cavalry. Yet at Mukden it is undeniable that well-handled cavalry might have ridden over the Japanese, time after time. No observer of events and things in this war can doubt that the advent of a sufficient body of hard-riding lancers or swordsmen would have severely tried Japanese nerves. \* \* \*

\* So far as my information goes, the Russian cavalry west of Mukden never once took the offensive during the battle. Strapped up with rifle and bayonet, they are incapable of wielding the sword; their lances, except in the case of a small proportion of Cossacks, have been left in Russia. So it was useless to contemplate old-fashioned cavalry work. But the Japanese communications were an easy mark, and it is one of the most singular features of Russian tactics, that they did not avail themselves of so glaring an opportunity.

That opportunities will occur where the saber can still be used is evidenced from the mounted charge of General French's cavalry brigades on Boer infantry in position, supported by artillery, during his advance on Kimberly.

Four squadrons of the leading brigade, deployed with ten-pace intervals, constituted the first charging line; the second echelon followed at twenty paces distance; the second brigade followed 500 meters behind the left wing in column of squadrons. The remaining brigade formed the third line in brigade column. The first line took the gallop at 1600 meters and came under infantry fire at about 1200 meters. The British cavalry

\*One officer of high rank, Maj.-Gen. Lord Brabazon, recommended a hatchet or tomahawk, to be hung from saddlebow.

broke through the Boer lines with a loss of but nineteen men. Fifteen dead Boers were found in their trenches.

Again we might quote from a lecture by Major Balck, of the German Great General Staff:

While most of the Boers and of the English at the beginning of the war held every attack as hopeless, the strange thing took place, that at the end of the campaign the Boers, who up to that time had been only mounted infantry, now actually attacked. \* \* \*

\* \* \* At these attacks they held the rifle as horizontal as possible and delivered quick fire in riding forward. So about 2000 riders, on April 11, 1902, in two ranks, stirrup to stirrup, at a gallop from 1500 meters on, attacked a detachment of Gen. Sir Ian Hamilton's at Roival. The English scouts and riflemen pushed far to the front, who had already opened fire at great distances, were ridden over; then the Boers encountered the principal force at 600 meters. For the first time at about eighty meters the attack was shattered. The Boers left in the hands of the English, fifty-one dead, forty wounded, and thirty-six wounded prisoners.

Surely if 2000 irregular cavalry armed with rifle and bayonet can charge over 1500 meters of open ground, and actually reach a point but eighty meters from their opponents, with a loss of but six per cent, it is not yet time to discard the saber as an auxiliary arm for cavalry.

Before leaving this subject of equipment we shall only remark that the experience of both recent wars has shown that the metal of cavalry equipments must be of a dull finish and noiseless. The increased difficulties attending present-day reconnaissance by cavalry requires that no rattle of equipments, no ray of reflected light, shall betray the position or presence of the patrol or scout. As the hunter still-hunts the deer, so must the cavalryman of to-day perform his duties of security and information.

#### THE SERVICE OF SECURITY AND INFORMATION.

In the period covered by the military operations of Frederick the Great, opposing armies marched and camped in such dense masses, and within such comparatively short distances of each other, that generals or their representatives could usually reconnoiter in person. The information service of cavalry was therefore little developed. As armies grew larger and more complex in the Napoleonic epoch, the service of information or of exploration increased in importance, as did in a lesser degree that of security. In proportion to complexity of organization and tactical employment, and the necessity for putting in

motion thousands of different units before giving or receiving battle, it became the more necessary to secure ample knowledge of the enemy's movements in time to start the ponderous machine in motion. The cavalry became the eyes of the army, and although its rôle on the battle-field has become more or less contracted, and its rôle of exploration and protection rendered more difficult by improvements in arms and ammunition, its *strategic rôle* has expanded to immense proportions.

Why is cavalry reconnaissance more difficult than ever before?

Cavalry patrols in open country are easily distinguishable at long distances, while broken or wooded country permits of ambushes and surprises. This statement was as true 100 years ago as it is to-day, but at the present time cavalry is unable to tell from opposing fire whether it has hostile cavalry or infantry in its front. Furthermore, artillery fire is "serious" to cavalry at 4500 yards, and "effective" at from 3500 to 2000 yards; while small-arms fire is "serious" at from 1800 to 1200 yards, and "effective" at from 1200 to 600 yards. Observation patrols of cavalry can ordinarily, even with glasses, distinguish little or nothing of hostile battle lines at distances over 1800 yards; while if they advance closer, they risk being decimated by artillery or rifle fire.

Making due allowance for the shortcomings of the British cavalry in reconnaissance duty, the Boer War furnishes many examples of the difficulties attending present-day reconnaissance, in the face of an active mobile enemy, especially if well mounted and composed of good shots. At the Modder River, individual Boer riflemen began picking off the British advance scouts at 2000 yards. Unable to successfully reconnoiter the ground beyond the river, Lord Methuen believed it defended by a weak detachment only, and advanced to the attack. The Guards Brigade was met by a murderous fire at mid-range distance, and it was not until nightfall that the river was crossed.

At Magersfontein the British reconnoitering patrols failed to establish the number and location of the Boer guns, or to locate the real shelter-trenches of the enemy at the *bottom* of the enemy's supposed position.

In the advance on the Modder preceding the relief of Kimberley, the entire British cavalry, composed of several newly organized brigades, was retarded by the fire of a small Boer detachment on the right flank, which was not completely

silenced by artillery fire. Many other cases might be quoted to show how a small party of hostile sharpshooters may prevent the approach of reconnoitering patrols, and the gaining of important information.

It must be remembered, however, that British cavalry displayed a decided antipathy for dismounted scouting. There were occasions without number in which dismounted cavalry scouts should have crept forward, carbine in hand, and reconnoitered the Boer positions at close range, possibly after night-fall, or at early dawn.

In modern security service, one magazine rifle can deliver a heavier fire than several rifles formerly could. It is consequently most difficult for reconnoitering patrols to discover how strongly a position is held. After drawing the fire of the outposts, it is usually advisable to attempt to uncover one or both flanks.

During the grand maneuvers of the British Army in 1903, Lord Roberts made the following *critique* of the information service:

In South Africa we always attributed our failure to secure reliable information to the perfect knowledge of the country possessed by the Boers, and their ability to conceal themselves. Our maneuvers have, however, clearly demonstrated that long-range modern rifles, smokeless powder and the wide extension of the troops, render the obtaining of information difficult in the extreme. We have seen some instances where a small body of troops, well covered, has by rapidity of fire, produced the appearance of several battalions, and has caused the adversary to estimate a squadron as a brigade. This is one of the points we must give special attention to in the future, and officers employed upon reconnaissance must be prepared to run the greatest hazards if they desire to furnish to their chiefs really reliable information.

That somewhat similar conditions confronted the Russian cavalry in Manchuria is shown by the following quotation from a lecture delivered by Captain Engelhardt, of the Nertchine Cossack Regiment:

In reconnaissance, the cavalry was often obliged to dismount and walk for fear of ambushes, and also because the terrain was badly cut up. When the cavalry was in route column, it had to send out its scouts on foot. The result was that in a mountainous country this arm was deprived of its principal quality, speed; for it could march only two or three versts an hour. The information gained by the cavalry would be delivered late at its destination, and would often be of no value when the commanding officer would receive it. Furthermore, the power of modern musketry fire rendered the rôle of our cavalry very difficult.

Basing the tactics of their cavalry on the necessity of carefully husbanding their diminutive force for the service of security and information, the Japanese commanders usually supported their reconnoitering detachments with larger or smaller detachments of infantry and artillery, upon which the cavalry fell back if too hard pushed. On the other hand, the Japanese patrols appear to have made up in eternal vigilance and intelligent judgment what they lacked in numbers and in natural horsemanship.

Let us now put ourselves in the place of the commander of a small patrol of the cavalry screen advancing to obtain contact with the enemy, in rolling country with alternating woods and cultivated ground, *i. e.*, the average terrain to be met with in civilized countries. Advancing cautiously along a trail or road, the patrol hears the whistle of rifle bullets. No smoke is visible and the report is barely audible. The projectiles have the crackling sound which gives no idea of direction. The patrol hurriedly dismounts under cover and steals forward, rifle in hand, seeking closer contact with the hostile troops. If the patrol be not fired upon, the horses are brought up under cover, if possible, and the advance on horseback continued. If fired upon, the patrol advances as close as practicable, and observes. Probably it will discover that when first fired upon the enemy was 1800 yards distance, and that it will have great difficulty in approaching on foot nearer than half this distance.

The commander of a patrol cannot tell whether a platoon, a battalion or a regiment is in his front. He tries a flanking movement. Perhaps he meets a similar body of troops and discovers nothing more than on his first contact; perhaps he finds he can slip by, and obtains contact again, a mile or more in advance. But he finds that try as he will, he cannot discover the strength of the enemy in front; he can only tell *where the enemy is absent*, and thus uncover the general outline of the hostile curtain or screen.

Supposing that the reports of all these patrol commanders are promptly co-ordinated and forwarded to the commanding general; will they give him sufficient information on which to base a general engagement? Unless augmented by a well-organized spy system, it will in general be insufficient, if the enemy is provided with enough cavalry to meet our exploration service at every point.

The difficulties attending modern reconnaissance, which

I have attempted to briefly outline, more especially in a country devoid of good maps, has developed in recent wars a new tactical organization, to which no better name can be given than our simple and antiquated term "scouts."

In South Africa, these trained specialists in security and information were, for the most part, loyal Afrianders, although the Canadian and Australian contingents furnished their quota. With some knowledge of plainscraft and horsemanship, these men became invaluable for reconnaissance, trailing, night-riding and guiding.

The value of trained experts in this branch of military science produced such a profound impression on British military men, that Colonel Haig, one of the most experienced of British staff-officers, thus suggests an organization and training for future detachments of scouts:

1. Twelve non-commissioned officers and men per squadron of exceptional intelligence, courage, nerve and eye for country; good riders and good horse masters, to be trained under a specially chosen officer.
2. After six months' thorough training as scouts, fourteen (14) to be selected from the total number to be designated as regimental scouts. They must be of the highest standard of efficiency, and as able to work by day as by night.
3. Each scout to be provided with a telescope or binoculars, two horses per scout, short rifle and Colt's automatic revolver.
4. Squadron and regimental scouts to receive a higher rate of pay.

Colonel Rimington, one of the most successful British commanders of mounted troops, thus describes a successful organization of patrols for the intelligence service, which, although specially applicable to the South-African terrain, is worthy of notice:

After trying many methods of scouting, I found that the most satisfactory results were obtained by using scouting groups, of which I had fifteen; and each of which was usually composed as follows: One Afriander, who was often either a renegade prisoner or a voluntary surrender, with knowledge of the locality; two natives and three specially selected soldiers, one of the latter, perhaps, being a non-commissioned officer. Each group was under the leadership of one of the soldiers, and however badly off the rest of the column might be for horses, efforts were made to give every group an average of fifty per cent of spare horses.

A frequent method of the Boers in both reconnaissance and outpost was, after proceeding some distance in front of the main body to halt the greater part of the patrol in some strong position; then to send forward a dozen men who, in a similar



manner, detached to the front three or four of the best mounted of their number. If pursued, the advance parties fell back on the next in rear. The group in rear usually remained perfectly concealed, and received the pursuers with a volley at close quarters.

Although the idea of specially trained cavalry scouts was a development of faulty British training, of the difficult terrain and of the splendid scouting qualities of the Boer farmers, it is worthy of note that the idea was also developed in the Manchurian conflict.

The Russian cavalry in Manchuria was, for the most part, composed of Cossacks from the steppes. With a great and apparently undeserved reputation as scouts, it must be remembered that the hill country of Manchuria was unnatural to their mode of life. Throughout the war they showed great aversion for hill-climbing, and usually contented themselves with superficially patrolling the valleys. Time and again the Japanese outposts lay concealed in the hills, as the Cossack patrols passed by them below.

Colonel Schuyler tells us that although the Cossack officer accused the Japanese cavalry of timidity in their painstaking reconnaissance of the country in their front, the fact remains that the Japanese were almost always better informed than their opponents. But of course much of their success in this respect must be ascribed to spies.

The disappointing results of Cossack scouting led the Russian commanding general, in May, 1904, to create a body of mounted scouts consisting of two squadrons under a selected officer, who were especially charged with strategical explorations. Each squadron consisted of five officers and from 150 to 180 men, selected from among all the cavalry regiments for their audacity, intelligence and bravery. During battle these scouts were held at the disposition of the commanding general to obtain information of different events, and at the battle of the Sha-ho are said to have distinguished themselves. During the lull which almost always succeeded battles in Manchuria, these Russian scouts explored the flanks and rear of the Japanese outposts.

Likewise, in each Siberian regiment of three battalions, there appears to have been a specially organized mounted detachment of 142 selected men, called *okotniks* or volunteer

scouts, who were used in the services of security and information.

Assimilated to this idea of utilizing specially trained cavalry soldiers for these duties, was the Japanese practice of assigning one three-squadron regiment of cavalry to each regular division for employment as orderlies, despatch riders and for divisional scouting and outpost duty. This liberal allowance of trained scouts for divisional uses obviated drains upon the independent cavalry, an evil which has been the bane of all ambitious cavalry commanders for many years.

There will thus be observed in both of the recent great wars an increasing tendency to *specialize* the service of security and information, or exploration and protection; especially where normally trained or poorly trained cavalry fails to meet the arduous and difficult requirements of modern warfare.

Ordinarily, the information service will be called upon to tell the commanding general the extent of the position occupied by the enemy, the weak points in his line, the supposed key to the position, the best direction to be given to the attack and such characteristics of the terrain as will be favorable for the attackers. Patrol reconnaissance alone will, in general, give very little of this information in the face of an active, well-organized enemy, especially if the latter be strong in cavalry.

What then remains to be done? If practicable, the hostile screen must be pushed back forcibly at some point or points discovered by the preliminary reconnaissance, by cavalry strongly supported by artillery and machine guns. If infantry supports be used at all, care must be taken that their lack of mobility does not involve them in battle with superior numbers; and in any case, that a general engagement be not precipitated before the commanding general is fully prepared.

While the long breathing spells following the successive Japanese advances are usually attributed to a desire to perfect their *étape* system up to the new advanced lines, as well as to fully recover from the shock of the previous general engagement, it is extremely probable that much of this time was necessary to perfect their intelligence of the new dispositions of the Russians. With insufficient cavalry to reconnoiter the Russian positions, except as small patrols, the latter must very frequently have been brought to a sudden stop by strong bodies of the enemy's cavalry or infantry, screening the Russian main forces. The Russian screen could not be pushed back without

bringing on a general engagement, so that spies were the usual Japanese recourse.

Supposing, however, that the Japanese had had abundant cavalry, with little dependence to be placed on spies—as was more or less true of the Russian Army—an anonymous writer in the *Revue de Deux Mondes*, supposed to be General Negrier, commanding the French Army, thus describes the way he would force back the opposing screen, and uncover, if possible, the real dispositions of the enemy

In the old tactics the (screening) columns were tied to their advance guards. These latter were given beforehand clearly defined and specific instructions as to their duties; it might be to attack, to take possession of important points favorable for the employment of the main body, or it might be to remain on the defensive. At present, all this is changed. The fighting units covering the columns should be entirely independent of the forces following them. The chief of each should maneuver according to the instructions which he may have received; but these instructions should leave him the largest possible opportunity for the exercise of his own initiative.

Contact being gained, the attack is delivered. Should one of the groups find nothing in its front, while the group on its right or left is engaged, the road is watched by a weak detachment, and a flank attack is delivered upon the hostile force which has checked or attacked the neighboring group. Thus, lending each other mutual support, ground is gained to the front, and the enemy is obliged to disclose his position. \* \* \* \* \*

Each group should be composed in great part of cavalry, with a few guns and a small detachment of infantry. Cycle detachments may be advantageously employed in such service. No one officer should be in command of these groups, since by so doing their initiative will be interfered with, and their action weakened. They are intended to act freely upon wide fronts, and thus deceive the enemy as to their numbers.

This initial contact of the cavalry of two opposing armies may be likened to the meeting of two hostile fleets: As command of the sea will ensure the successful advance of the forces following the fleet, so will the crippling of the enemy's cavalry place him at a terrible disadvantage as regards his service of security and information.

Therefore, the commander who feels himself deficient in cavalry, will, like the Japanese, push his infantry supports well up to his cavalry, and avoid taking chances of loss.

#### INDEPENDENT CAVALRY.

Except as modified by present-day conditions in the theater of war, it cannot be said that the rôle of independent cavalry has greatly changed from that taught by the cavalry leaders

of the War of the Rebellion. At all events, neither of the two recent wars has developed anything new, except to accentuate what was already developed in our own great war. The importance given to mounted infantry and to dismounted fire action during the Boer War was a favorite method of cavalry fighting in 1863 and 1864; and in no subsequent war has the great independent operations of cavalry, known as raids, been approached in boldness of conception or in brilliancy of execution. To be sure, in the more recent wars, the Russians alone possessed sufficient cavalry to undertake independent cavalry operations, but as has already been stated, the results attained were disappointing and entirely negative.

Much was expected of the Russian cavalry in its independent rôle and it is possible that with better leaders it might have contributed some decisive results to the Russo-Japanese War.

A keen British observer of the war has remarked that if General French, with 10,000 British cavalry, had been given a free hand in the war on the Russian side, there would have been no necessity for Kuropatkin to retire from his strong position at Liaoyang; and that if the same able commander had been attached to the Japanese side at Liaoyang or at Mukden, there would have been no Russian Army in Manchuria to sue for terms of peace.

The lesson to be learned is but a reiteration of what we have already remarked: The leaders of cavalry must be specially qualified men, or results are *nil*, no matter what may be the numbers and training of the mass of personnel; and the latter must be both numerous and well trained. If numerous and not well trained, as were the Russians, the cavalry will be more or less of an incubus, to be rationed and foraged at the expense of the more valuable part of the army. If well trained but weak in numbers, as was the Japanese cavalry, not only will independent cavalry operations be out of the question, but a large part of the security service will be thrown on the infantry, while the information service will become greatly dependent on the use of spies.

#### DISMOUNTED ACTION.

We have already touched upon this subject in our discussion of the cavalry armament, but it is worthy of remark that what was apparent to the cavalry leaders of the Civil War, forty years ago, is only now becoming apparent in the cavalry

tactics of the great military powers of Europe. Despite the teachings of General Pelet-Narbonne, the Germans still seem loath to appreciate the lessons of recent wars; and in France, too, there is a powerful faction which still clings to the cuirass—an expedient which appears to us a relic of the Middle Ages.

The imprint of the experience of the Boer and Russo-Japanese wars is seen in very recent amendment of the Austrian cavalry regulations, which permits of dismounted fire action quite similar to our own regulations on the subject. But the lack of importance attributed to dismounted work by the Austrians is seen in the fact that the Austrian trooper is given ammunition allowance of but *fifty* rounds—twenty carried in his pouch and the remainder in his saddle-bags.

While the opinions of Lord Roberts and other general officers who saw service during the Boer War are entitled to the greatest consideration, his extreme opinions as to the almost universal use by cavalry of dismounted tactics must be received with a great deal of caution, as resulting from the abnormal terrain. The opinion of the British commander is rather modified by the published statements of his cavalry commander, General French, who, while acknowledging the necessity of much dismounted cavalry action in South Africa, calls attention to the fact that in a European war cavalry will be opposed by cavalry. "I am absolutely certain," says he "that if we are opposed by cavalry anything like as good as we think our own cavalry, the leader who gets down off his horses and begins firing (except with one or two squadrons which may be used on the same principle as horse-artillery), is lost."

#### HORSE-ARTILLERY AND MACHINE-GUNS.

The more present day tactics is studied, the more it seems certain that success is dependent upon a union of the three arms in such a manner that each will perform its function at the proper time. The tendency of present cavalry organization is to make that arm, because of the necessity of extreme mobility, self-sustaining in as great a degree as possible.

If infantry were as mobile as cavalry, it would, of course, be a desideratum to attach infantry regiments to cavalry divisions. Not being sufficiently mobile, the cavalry is armed and trained under present day ideas to do infantry duty when necessity arises. For the same reason, field-artillery not being altogether as mobile as cavalry, horse-artillery takes its place

in mobile cavalry operations. In addition, machine-gun batteries combining infantry fire with cavalry mobility are becoming more and more advantageous to independent operations.

Of the relations of artillery to cavalry operations little need be said, except that the wonderful power of modern artillery renders the addition of horse-batteries to cavalry organizations as necessary as is its presence with the infantry, perhaps more so.

The relation of artillery to cavalry is no new subject of study, so that we shall pass to that of machine-guns, whose action is still subject to controversy, although most recent reports from the Russo-Japanese War point to an almost universal recognition of their value. By machine-guns we mean guns discharging a mass of small-arms projectiles, and not small caliber artillery such as the pompom.

A Russian officer, commanding a machine-gun detachment, thus expresses himself in the *Ruskii Invalid*, after nine months' service at the theater of war: He believes in their special value to cavalry, in order to supplement the weakness of their dismounted fire-action and to replace it in part, thus leaving to the cavalry more initiative in reconnaissance. He states that the value of machine guns made such an impression on the cavalry, that several regiments purchased them with regimental funds.

He believes in but one way of carrying the gun; they must possess great mobility to accompany cavalry, and should be trained to use the trot for long distances. He believes in the gun-carriage on the march, and the tripod mount in action, without shields—the latter being dispensed with to minimize visibility. He states that while the machine-gun detachments may be attached to any of the arms, they should form separate units under their own commanders. They should never be employed as isolated guns, but with at least two against the same objective, so as to insure continuity of fire, in case of damage to one gun. Both the German and the French regulations lay down the same rule.

With the Japanese Army, Major Kuhn tells us that machine guns were first observed by him—after leaving Port Arthur—in connection with a review of Prince Kanin's cavalry brigade at Liaoyang. At the close of the war each of the two Japanese cavalry brigades was equipped with six machine guns. These

guns were organized into sections of two guns under an officer, so that sections could be attached to squadrons.

In the first cavalry brigade commanded by General Akiyama, 4000 rounds per gun per day was the greatest rate of fire attained. Major Kuhn remarks that machine guns are popular in the Japanese Army, and were highly spoken of by the officers. So far as the execution brought about by these guns is concerned, it may be mentioned that Captain Judson states that Russian officers told him, informally, that they suffered considerable loss from the Japanese machine-gun fire at the Battle of Sandiapu.

In this connection it is worthy of remark that in the German Kaiser Maneuvers of 1905 much of the success of the Blue Army was attributed to two machine-gun detachments, attached to the Blue Cavalry Division, which inflicted considerable losses on the left wing of the opposing infantry division. The machine guns are said to have proven their value more and more, and their assignment to every German army corps is now said to be only a matter of time. Their value to cavalry was specially demonstrated when horse-artillery was lacking, and over difficult ground.

#### CONCLUSIONS

In conclusion, we shall again state that while the abnormal conditions surrounding the cavalry operations during the Boer War have made deductions based *entirely* on that war somewhat hazardous, we may feel reasonably certain that new cavalry principles, which have been found *common to both wars*, may be accepted with a great deal of faith.

It is, therefore, most interesting to note the following latest published deductions of the Russian General Staff as to the use and training of their cavalry, based on the experiences of their war:

As to the cavalry, the Russians say that to practice in peace time what is useless in war, is absurd. The war has demonstrated—

1. The necessity of a first-class musketry instruction (carbine and revolver), not only for dismounted, but mounted individual action.
2. The necessity of furnishing each cavalry regiment with at least one machine-gun.
3. The importance of mobility; horses must be worked daily, no fat horses, harness and saddlery, equipment and arms of the rider must be lightened. The necessity of instruction in crossing all sorts of obstacles, including rivers.



4. The exercises of combined huge masses of cavalry must be given up; more time must be given to regimental instruction, which must be simplified. Little must be taught, but that well.

5. Special rules for reviews and marches-past to be abolished, and parade reviews held as seldom as possible.

6. All inspections to be given to seeing if the troops can maneuver, exercise initiative and shoot; can utilize cover, can combine shock and fire action, can effectively threaten the enemy's flank. More instruction in reconnaissance and in combined action with infantry and artillery is of vital importance.

So much for the Russian cavalry. While the Japanese military authorities are, as we know, most reticent in expressing opinions as to the lessons of the war, the *London Times* correspondent, who enjoyed unusual facilities for securing information, thus expresses himself as to the cavalry lessons to the Japanese:

The war has brought home to the Japanese the value of cavalry, and one of the very first reforms in their army will be the augmentation of the mounted branch of the service. \* \* \*

The Japanese are an eminently practical people. From the weakness in their own cavalry, and from the consciousness that properly handled Russian cavalry could have played havoc with their dispositions in action and inaction, *they have learned the cavalry lesson,\** and they mean to profit by it. It is impossible to observe the events in the war, and to discuss the question with Japanese officers, and officers of many foreign armies, without being forced to the conclusion that the Japanese are sound in their interpretation of the cavalry lesson, *that genuine cavalry, and plenty of it,\*†* is essential to an army.

To briefly recapitulate what recent wars have developed in the duties of cavalry preceding a general engagement, we shall state that to our mind they have demonstrated:

1. The necessity for a higher natural standard of *personnel* and a higher standard of *training* of both officers and men to meet the greater physical and intellectual *exactions* demanded of modern cavalry.

2. The necessity for a highly organized system of *expansion* to meet the demand for cavalry at the outbreak of war, and a system of *supply* to meet the increased *losses* in horseflesh due to more exhausting duties.

3. The importance of *minimizing the weight* carried by the cavalry horse to satisfy the *increased mobility* and *endurance* expected of him.

4. The greater *difficulties* confronting the cavalry in the *service of security and information*, as well as the greater field

\*The italics are mine. C. D. R.

of opportunity in *strategical exploration*, more than balancing its contracted rôle on the field of battle.

5. The value of *dismounted fire-action* by cavalry, and therefore the necessity of an accurate and long-range firearm; but to encourage *independence of action*, so necessary to cavalry success, and to provide for occasions when cavalry shall meet *cavalry*; the desirability of supplementing the rifle with an auxiliary arm, such as a serviceable *saber* or *pistol*.

6. The necessity for adequate cavalry for *divisional duties* with infantry to save troops which are to bear the brunt of a general engagement from these duties.

7. The need of concentration of all the available cavalry that can be brought together, without impairing its other functions, into independent cavalry, because of the *immense independence of action* given to modern cavalry by arming it with a long-range rifle, and by giving it the aid of *horse-artillery* and *machine-gun batteries*.



## Seaman Prize, 1905—Honorable Mention.

### THE ENLISTED MAN'S CONTRACT WITH THE GOVERNMENT: THE MUTUAL OBLIGATION IT IMPOSES AND HOW ITS VIOLATION MAY BEST BE AVOIDED.

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HERE is no subject of more vital interest to the service than this, nor one which, properly considered and solved, can have so deep and lasting an influence on its greater efficiency. In such a discussion thoroughness and frankness are a *sine qua non* to any real accomplishment—a broken leg cannot be cured with soothing syrup. Having a clear knowledge of the contract in all its bearings, and distinctly recognizing and frankly stating the many violations by both parties to it, it would not seem beyond the ability of men educated in and devoted to the service to provide, or at least to point out, proper remedy.

Thus, in considering the subject, we have to deal frankly and plainly, not only with the obligations and violations of the enlisted man, but also with those of the Government.

While the thousands of petty, minor infractions of discipline on the part of the enlisted man are, strictly speaking, violations of a part of the enlistment oath, yet the great majority of them, taken singly, do not rise to the dignity of a violation of contract, as generally understood. Such conduct frequently repeated of course finally renders a man practically worthless as a soldier and constitutes a serious violation of contract.

With the foregoing considered as a sort of preface, let us proceed to examine the contract itself, which is as follows:

STATE OF ..... }  
COUNTY OF ..... } ss.:

I, ..... born in ..... in the State of ..... aged ..... years and ..... months, and by occupation a<sup>1</sup>....., do acknowledge to have voluntarily enlisted (or re-enlisted) this ..... day of ..... 190..., as a soldier in the Army of the United States of America, for the period of three years, unless sooner dis-

charged by proper authority; and do also agree to accept from the United States such bounty, pay, rations and clothing as are or may be established by law. And I do solemnly swear (or affirm) that I will bear true faith and allegiance to the United States of America; that I will serve them honestly and faithfully against all their enemies whomsoever; and that I will obey the orders of the President of the United States, and the orders of the officers appointed over me, according to the Rules and Articles of War.

..... (SEAL.)  
 Subscribed and duly sworn to before me this..... day of  
 ....., A. D., 190...

.....  
 Recruiting Officer.

This enlistment oath is the contract entered into by the man and the United States, but it is based, in all that concerns his qualifications, on the signed declaration of the man and his answers to various questions asked him. By means of these things he has demonstrated his eligibility to enter into the engagement.

These, then, as well as the physical examination record, are related to the actual contract in such a way that they are really part of it and should be so considered. For fraud in these things—in other words, for practice of deception to secure a contract which he otherwise could not have secured—the United States reserves the right to terminate the contract by discharging the man without honor and, in some cases, with no pay or allowances.

The obligations imposed by the enlistment contract upon both parties to it are of two kinds, express and implied.

A clearer view of the matter can be had by considering separately the obligations and violations of each principal. The obligations of each party must first be clearly set forth before violations can be recognized. Then, having recognized the violations, there will only remain the solving of the problem of "How its violation may best be avoided."

#### OBLIGATIONS OF THE ENLISTED MAN.

The enlisted man expressly agrees to serve the United States as a soldier for three years, unless sooner discharged by proper authority; to accept such bounty, pay, rations and clothing as are or may be established by law; to bear true faith and allegiance to the United States; to serve them honestly and faithfully against all their enemies and to obey the orders of the President of the United States, and the orders of the

officers appointed over him according to the Rules and Articles of War.

By implication it must be assumed that he also agrees to serve "honestly and faithfully" during peace as well as against enemies; that he has not practiced deception in any way to procure his entry into the service; and that he will cheerfully, promptly and fully comply not only with the letter of all proper orders, but also with their spirit—in other words, that he will, to the best of his ability, render proper service for value received.

#### VIOLATIONS BY THE ENLISTED MAN.

In any volunteer army such as ours the rate of violation, minor and major, will always be greater than in one made up by annual levy. This at first glance may seem paradoxical, but on closer view the reasons therefor will become apparent.

We cannot possibly hope to completely do away with violations as long as men are human and not mere automatons, for even though we should find and eliminate every cause that does not lie within the men themselves, or their private circumstances; if, in other words, every contributory fault of the service were removed, there would still remain a certain percentage of violations, great and small, induced by causes wholly beyond military remedy and, many times, largely beyond that of the men themselves who commit the acts. The best that can be hoped, therefore, is not the complete doing away with of all violation, but simply as great reduction as possible.

Broadly speaking, violations on the part of the enlisted man may be divided into two general classes, minor and major.

The many minor violations assume various forms of petty infractions of discipline, and may or may not be due to dissatisfaction with conditions of service. Such, for instance, are short, unauthorized absences from station, failure to attend stated roll-calls or duties, the great majority of cases of drunkenness, dirty arms or equipment, slouchiness, lack of cleanliness and neatness about bunk or quarters, failure to comply with various company or post regulations, some instances of disrespect, etc.

For the very great majority of violations of this class the men are undoubtedly wholly responsible, and the principal remedy to apply is the exclusion from the service of as many as possible of the weak, roving, vacillating, insubordinate or

vicious ones now sometimes carelessly enlisted. This, of course, must be principally accomplished at recruiting stations, but some assistance also can be expected from the recently established recruiting depots; for when such men make their appearance there they should be promptly discharged for the good of the service. Such action would be a real economy, not only in dollars and cents, but also in service efficiency.

As before stated, though, practically the whole of the task should be accomplished at recruiting stations.

In their desire to make or maintain records for the number of men enlisted, or in some cases at least, it is believed, from sheer carelessness or lack of special fitness for the duty, some recruiting officers do not go as thoroughly as they should into the records and qualifications of applicants for enlistment. Regulations require that only men of good habits and character be enlisted. More than the mere word of the applicant in the matter should be required by the recruiting officer before accepting him; yet, it is believed that the great majority of original enlistments are made with no further information on this most important of all qualifications.

The record of each applicant for the past year should be thoroughly gone into, and unless solid character in every respect and good staying qualities were clearly shown he should be rejected. It has been urged by some that, practically speaking, this is impossible; that the men will forge recommendations or produce false personal vouchers, and, finally, that such methods will not secure the required number of recruits.

The answer to the first two objections is that it *is* possible to properly investigate if *real, earnest* effort of the *right* kind is made, and to the last there can be but one practical reply—the deficiency of good recruits, even admitting such, will not work as great harm as a full supply of bad or indifferent ones. Further, an officer of sound judgment and a few years' service—a good judge of men—will not be absolutely dependent on written or personal testimonials presented to him, but will be able to make a very good gauge of most applicants independently. Therefore, only such officers should be detailed for recruiting service. Both those of such short experience in the service as to preclude a knowledge of its requirements, and also those who, having been removed from the active list for some length of time, are out of immediate touch and contact with it or, being on the active list, have such high rank or reached such an

age that they cannot descend to the detail and careful personal attention required in the case of each individual applicant, or acquired the notion that the service owes them a "soft snap" for two years, should be excluded from detail. No retired officer whose disability is of such a nature as to interfere with his active and constant performance of all the duties of the detail nor, except in time of war, one who is more than fifty years of age or has been retired longer than three years should be detailed for recruiting service. Not that the good of the service is not just as dear to these men as to those on the active list, but simply from all the conditions they cannot do the duty as it should be done.

It is quite as important to secure good material for the construction of a good house as to employ skilled workmen to put it together. The best of workmen cannot erect a first-class structure with second-class means; therefore it is just as necessary to enlist the proper kind of men as to give them the proper kind of training. If we are to eliminate many of the undesirables now enlisted, the recruiting service must be vigorously reformed; not simply *talked* to through orders, but *acted* on, generally and specifically.

No matter, though, how thoroughly the recruiting service be reformed, impossibilities cannot be expected or accomplished. In the line of men, as with other commodities, market value is the rule, and we cannot expect to get very many men for less than they can obtain in civil life. If we want men of a certain quality, we must pay the price.

To get a larger percentage of first-class men than present inducements are capable of producing, we must offer more money. A cheap price will not, on the average, buy first-class goods. Bargains cannot be counted on as a steady thing, and even some that we do get are a little shop-worn. The rights of the matter cannot be better stated than by the Paymaster-General of the army in his last report where he says: "That the army is underpaid, especially in the case of the enlisted men, is too well known to require demonstration. It may be a fact that the American soldier is better paid, better fed and better clothed than are soldiers of other countries; but this is a fallacious argument and unworthy of a place in any discussion of the subject, because it is equally a fact that before he joined the colors he was better paid, better clad and better housed than the class of citizens of foreign countries from



which the recruits for their armies are drawn. The true basis of comparison should be with the condition of his compeers in civil life. Is he as well-paid considering the duties he has to perform, and is he as well-off at the end of his enlistment as he would have been had he not entered the military service? The complicated machinery of the modern armament requires thinking, educated men—a class to whom the present rate of pay offers but slight inducement to enter the service in times of prosperity."

Considering the duties imposed upon them and the qualities of mind, heart and character that we have a right to expect of them, our non-commissioned officers with some few exceptions, are woefully underpaid. The non-commissioned officers may well be called the nerves and muscles of the army body. They are controlled by the brain (officers) and cause the body to do its bidding. No animal body, however highly trained the brain, fitted with underfed, poorly nourished or organically weak nerves and muscles, can perfectly accomplish its functions.

Non-commissioned officers are the ones who daily and hourly come into personal contact with the men and through whom discipline is directly applied and maintained. All good officers know their supreme importance, and therefore to dwell upon it here in detail would consume word allowance otherwise needed.

In this practical period we generally get what we pay for and no more. Therefore, if we seriously hope to materially improve our non-commissioned *personnel* we must offer adequate compensation. The recommendation of proper amounts for the various grades has no place here, but it is felt that non-commissioned officers of the line should receive primary consideration.

So, also, certain privates should receive more than others. To accomplish this, privates of infantry, cavalry and artillery should be divided into two classes, privates and first-class privates; the latter of whom should receive the pay now given corporals. Such a division would not only offer additional incentive to the young soldier to do his best, but in many ways would be a powerful measure for good in the hands of the captain. It has been found valuable in certain staff corps, why not give it to the line? In the stress and strain of combat is the man behind the gun of less importance than his comrade who is not? If so, then the hand is of more consequence than

the body which it attends; if not, give him advantage of an organization that has been found to work so well with others. Lack of space forbids enumeration of the many reasons in favor of this classification, but every company commander of much experience or other officer of long service will readily recognize its value.

Substantial justice to both the service and the men in the matter of pay could be done for approximately \$1,500,000 more per year than now. Considering the great increase of service efficiency that would result, and its far-reaching influence for the good of the service in a hundred ways, the sum seems ridiculously small. No greater benefit could be conferred on the service by any single measure of relief.

Not only should the men be better paid, but more frequently. Payment should be made at least twice a month, but preferably three times, to all large commands in the United States and also to smaller ones with good communications. This would involve some extra work by some officers, and the devising of a simple but accurate system of record, account and payment. American officers have never shirked work, and it is believed that a competent board of officers of the line and Pay Department could soon perfect a proper scheme. Next to better pay, the writer believes that more frequent payment would do more than any other single measure to bring about more contentment among the men and lower the rate of violation.

Men, such as soldiers ordinarily are, paid at long intervals and without family ties or other sense of direct personal responsibility, except to themselves, and with their employment fairly secure, are more apt to spend their money as quickly as possible in vicious pleasure or riotous living and get into periodical trouble than if paid at shorter intervals. The money quickly spent, there follows a period of either famine or borrowing or selling clothing or something worse. Discontent is the hand-maid of all these things and violation is the frequent companion of discontent.

If the men are paid more frequently they will always have a little money of their own and be more on a level with men of their average class in civil life who are paid more frequently and usually have a little money at all times. Then if he wishes to take his sweetheart to a dance, the theater or for a car ride, or for any other purpose needs a little change, the soldier will

not have to borrow at ruinous rates, or be tempted to sell his clothing. The man with money in his pocket, be the amount ever so small, has a greater sense of responsibility, feels more of a free agent and has a better opinion of himself than one who habitually has none.

Some may think this would result in three derangements of garrison peace and routine each month instead of one as now, but it is believed quite the contrary would be the case. With more familiarity with money would come more prudence in its use.

The further advantage would be gained of not placing in the hands of certain classes of men sufficient money at one time to buy a long enough railroad ride to enable them to desert. Thus violations of this class would be reduced; for certain it is that some men desert simply because they have enough to buy a fairly long ride and have a few dollars left at its end.

This done, the law should be changed to permit the deposit of sums of less than five dollars.

It is urged that the idea be put on trial at three or four large posts near department headquarters where there is no probability of change of garrison for one year. Such a test would determine whether or not the proposition has any real value.

Liquor is probably responsible for at least one-half the violations for which the men are wholly to blame.

For this there are two cardinal remedies: Reform in recruiting, as before referred to, and beer and light wines in the post exchange. These cannot do away with all violations due to liquor, but would reduce them very materially. The evils and disadvantages that followed the abolition of the liquor feature of the post exchange, as well as the reasons why it should be restored, have been repeatedly set forth by abler pens than mine, but still a short résumé of the matter would seem to be proper here.

Practically the entire service, both commissioned and enlisted, is not only in favor of the restoration, but ardently demands it. Commanding officers of all grades have repeatedly stated that violations of all kinds, but particularly those due to liquor, have most materially increased since the abolition of the sale of liquor in the exchange; and that discipline is not only more difficult to maintain, but is not as good as before. Officers of all grades, as well as the men themselves, have urged for years that the old exchange was more of a

source of content and comfort than the present one, and if this be true, as it unquestionably is, then it follows, as day the night, that its presence was a good thing and its absence is a bad one. Profits which formerly went into the stomachs of the men in the shape of more and better food, or into books, pool and billiard tables, curtains for barrack windows, and the many little odds and ends about the quarters that made them more attractive, homelike and comfortable now go into the pockets of proprietors of the vile rum shops and vicious dives that fringe every post and have constantly increased in number since exchanges have sold no beer.

Soldiers are not saints, either real or in disguise, but only plain, ordinary human beings, and as long as human nature is what it is, more or less of them will drink liquor. Being unable to get it at home, they go where they can. Instead of the pure light beer which was formerly sold them in the exchange, and only in reasonable quantities, they get all sorts of vile concoctions on the outside and are urged to take, not a reasonable quantity, but all they can hold or pay for. The result is that many times they drink more than they intended to; get into disgraceful fights and brawls or otherwise bring discredit on the uniform when nothing had originally been further from their intention; being so far from the quarters, miss one duty and then others, thus multiplying a slight violation into a grave one; and, finally, in some cases actually desert when otherwise they would not have.

The good but short-sighted people who brought all this about urged that as a matter of principle the Government should not sell beer, and that by so doing many young soldiers were led to take their first drink or, from easy opportunity, became habitual drinkers. It may be that some few men have taken their first drink in an exchange; but it is fully believed that these same men would have taken this first drink just the same in the absence of the exchange, but in a much worse place, for all posts are more heavily fringed with low grogeries and dives now than when the exchange sold beer, hence the opportunity is greater than before. It is agreed that beer selling is a bad thing in principle; but the beer feature of the exchange was simply the lesser of two evils, therefore it was not so hurtful as the greater with which we now have to contend.

Dive-keepers fought the service and are still fighting us on the issue, and so did and are certain misguided but respectable

people. Thus we see two widely antagonistic elements united in common cause, but for very different purposes. The one has hoodwinked the other to assist it in a fight for its pocket-book, while the other imagines it is contending for a real benefit.

Verily, the lion and the lamb have lain down together.

But even with the best class of men possible, short of real angels, there would be a certain remaining percentage of minor violations, and inasmuch as it is neither possible nor desirable to enlist real angels, we must search elsewhere than the recruiting service for their causes. A certain portion of this "remaining percentage" of minor violations would still be committed if both men and service conditions were as nearly perfect as possible simply because the machine known as the service is composed of human elements.

There remains, then, a certain portion of minor violations with only the Government to father them, for those with other paternity have been eliminated. While two wrongs do not make a right, and there can be no justification for violation of his plain duty by the enlisted man, yet vexatious or unreasonable requirement; impatient, insulting or brutal treatment; indifferent or neglectful conduct of those in authority over him; severe punishment where milder would have answered as well or better; manifestly poorer food or inferior arrangement in various matters of interior economy in some companies than in others; the imposition of duties clearly not within the terms of the contract, such, for instance, as cleaning windows, beating rugs, scrubbing floors and other things of menial nature for officers—"striker" service—except by agreement and payment; excessive fatigue, particularly with pick and shovel, when other labor could be obtained or the necessities of the service do not render his employment in that capacity necessary; and other infringements, if not positive violations, of the terms of the contract by the Government, all go a long way toward explaining why in his disgust and resentment the soldier is sometimes derelict in his duty. That the enlisted man has at one time or another some or all of the above grievances to contend with, and sometimes others also, is undeniable. The mere naming of them should suggest to the proper persons the proper method of their abolition.

Another fruitful source of discontent and soldier "growling" is the extra and special-duty system. The proper remedy

is its abolishment and the substitution of a service corps of clerks, artisans, mechanics and skilled laborers. All extra and some special duty men receive extra pay and are wholly exempt in some cases, and partially in others, from guard duty, drills, parades, other functions under arms, kitchen police, fatigue details of all kinds and many other disagreeable duties. Their absence from these duties causes other men to be detailed more frequently and makes them feel that they are doing not only their own unpleasant duty, but also that of others who not only avoid it, but are actually paid for doing so many times. In nine cases out of ten these extra and special-duty men would prefer their jobs even without extra pay to straight soldiering, which many times involves more hard, disagreeable work for more hours per day. There is a very general feeling among the other men that these selected ones are in a special class which enjoys more privileges and is subject to much less of the drudgery of the service than they.

Possibly violations are not committed in direct consequence, but nevertheless the system constitutes a link in the chain of dissatisfaction that drags some men into doing things they would not do if they were more perfectly satisfied. The duties performed by extra and special-duty men are absolutely necessary, but the Government should find some way of having them done without prejudice to those not on the favored list. A special service corps is the means by which this can best be accomplished.

That there is local cause for violation is plain from the fact that in any garrison of several organizations it is nearly always the case that certain companies have more violations than others, and that this is practically continuous. Such companies have no *esprit* and their commanders either do not know how to create such a thing or do not care. The men in them are utterly indifferent to the fact that other companies drill or shoot better, that their quarters are cleaner and better kept, that all the orderlies are selected from other companies, that their own companies are not regarded as among the best, etc. In short, they have no company pride. This is not their fault, but that of their officers.

The company commander should have a high sense of duty, a fine practical sense of justice and an abounding faculty for hard work. He should be a good judge of men and have great capacity for detail; for in managing a company it is the balance



secured by well-ordered detail rather than the fine front obtained by pompous generality that makes the machine run with a minimum of friction.

The captain should give his personal attention to every detail of interior economy in a proper way—to the thousand and one little things that men have to contend with daily and that go to make life smooth or rough; he should make his company's interest his interest; he should be particularly careful in his selection, training and supervision of non-commissioned officers, permitting vacancies to exist indefinitely rather than fill them with indifferent men simply to have them filled or to give the men the increased pay. In order that he may know when to punish severely or mildly, as the case may be, admonish, counsel or advise, he should study the character of each of his men, for they each have an individuality and cannot all be handled alike. His sense of justice and fairness should be absolute, but at the same time his bearing toward his men should be such that they could at all times rely on his intelligent sympathy, both in fair weather and foul, and feel that they could go to him, not always as to an inexorable judge, but rather as to a just father; his men should know that every act of theirs, individual or collective, was near to his heart; he should promote a feeling of company pride by showing his own pride and interest; he should actively encourage and promote athletic, literary and social organizations within the company; he should put a stop to money lending and borrowing in the company and actively encourage his men to deposit and he should personally see to it that the barrack is as attractive, comfortable and homelike as possible.

In just the degree that the captain possesses these qualities and does these and other things along the same line will he have a well-balanced and properly run company and one in which the rate of contentment is high. It is axiomatic to say that a high rate of contentment is accompanied by a low rate of violation.

Along this line, some remarks of the Chief of Staff in his report for 1904 can be quoted with profit. He says: "Character, habits, aptitude, differ widely among men on entering the army, and it is the skill of the experienced officer, with his intelligent sympathy, his counsel and admonition, rather than rigid mechanical enforcement of the Articles of War for minor faults, that best harmonizes these varying elements and secures



contentment of young soldiers in companies and the service." Strive as they will, however, or perfect their organizations as they may, captains cannot always get the desired results, for over them are post commanders whose regulations must be obeyed. If these regulations and the general conduct of the post are such that sometimes even captains use every endeavor to get away because of dissatisfaction, what must be the state of mind of the men?

Every department commander can testify to marked difference of capacity among his post commanders. Here and there one can be found who runs his post in a slipshod, slouchy, happy-go-lucky fashion (or permits someone else to do it for him), or, on the other hand, uses no practical sense in his arrangement of duties or seems to act on the theory that the highest duty of a commanding officer is to be a nagging martinet. The result in each case is the same—inefficiency and a high rate of violations of all kinds.

The prompt and proper use of inspectors, retiring boards, courts-martial and the President's prerogative is the remedy for such.

A serious cause of discontent and consequent violation is the absence of entirely too many captains from their companies. Some regiments have five or more captains absent on details of from one to four years with others away for shorter periods, thus bringing the total up to six or eight. In the vast majority of cases companies commanded by their captains are better commanded than others. The men are better cared for, they are better handled and the organizations are in better shape in every way. The captain has a permanent interest and pride in his company and handles it accordingly. His greater experience and better judgment of men enable him to get better results with less friction than a younger man or one with less rank. The writer has known "orphan" companies to have as many as eight or ten different commanders, none of them their captains, within a year. Such companies soon come to be known as "mobs," discipline and efficiency promptly disappear and violations, both minor and major, rapidly increase.

Get more captains back to their companies and keep them there. Those in authority can do it if they only will.

Probably a good and sufficient reason can be given for each case of long or semipermanent absence; but on the other hand, when they are considered in the aggregate and the resulting

harm to the service taken into account, still stronger reasons will appear why the great majority of such captains should be back with their companies. Thus far only minor violations have been dealt with. While they are of vital importance from any point of view, still it is the major violations that constitute the more serious breaches of contract by the enlisted man, and of these desertion is by far the most serious and the one of gravest concern. Major violations assume various forms for which, generally speaking, sentences of three months or greater and forfeiture of all or partial pay may be given by law. What has been said heretofore relative to cause, explanation and preventive in the matter of minor violations has also direct application to and bearing on those of greater degree. But in addition, the question of desertion is very much more complicated and merits special consideration. It goes without saying that nearly all deserters leave the service because they are not satisfied to remain in it; but the writer feels certain that some few cases have come under his observation where this was not the case.

This dissatisfaction may or may not be due principally to inherent defects of the men concerned.

Broadly speaking, the causes of desertion may be grouped into two general classes; those without the service and those within the service. Not infrequently, though, the act is committed as a result of a combination of causes of both classes.

Before such a long standing, chronic disease can be properly treated a thorough examination of its causes must be made and the result frankly stated. If, perchance, we find that our trouble has been acquired in any degree "not in line of duty," and that we are still addicted to the same line of unhealthy practice, let us frankly acknowledge it and mend our ways, however much it may shame us, or to whatever extent we may have to change some of our habits. Many of the "causes within the service" that exercise a contributory influence have already been considered, and others will be considered later under their proper headings. Let us therefore take up the consideration of those "causes without the service" that have bearing on the subject. That public sentiment does not sufficiently condemn deserters is a well-known fact. The public at large does not seem to view desertion as a serious crime, but rather as a mere breach of contract and as of no particular concern to anyone but the parties to the contract. The army is a small affair and, except

in time of war, of very little immediate interest to the great mass of the people; therefore, the doings of component parts of it, great or small, pass with small notice from them. They have heard in a vague sort of a way of "military methods," "snobbish army officers," etc., and they regard a deserter as one who, while he may have committed a wrongful act, was more or less forced into it by harsh and brutal treatment and has simply done as they would have under similarly intolerable conditions of employment—quit the job without notice. Therefore, there is no general disposition to regard the deserter as a criminal, but rather as one who has suffered and had to resort to strenuous means to release himself. That is, this is generally the view taken where there is any "view" at all. Owing to this attitude on the part of those who take any interest at all, and to the general lack of interest and pride in the army by the remainder of the public, it is believed that there is a general feeling of indifference to the fact that a man is a deserter when such fact becomes known. The one class will not cause his arrest because they think he was abused, and the other because they do not regard it as of sufficient importance to occupy their time or attention. The only remedy for this state of affairs lies in arousing the general public to the serious nature of the offense. This cannot be done until a more general sentiment of affection for, and interest in, the army is created in the people themselves. The Chief of Staff says, in his report for 1904: "Deserters from the military service return to civil life and there seek employment and the exercise of civil rights and functions accorded to others, and it is rare that they do not disclose having had connection with the military service. If all States and Territories should by law withhold from deserters exercise of the right to vote at national, State and municipal elections, unless the act of desertion be atoned for by lawful discharge, subsequently earned by service, it seems probable that the most healthful remedy practicable would be applied to the evil, and that the result would be surprisingly great. The majority of deserters would return to the colors at their own expense and serve out their unexpired enlistment contracts in order to receive a lawful discharge which would re-establish their civil status. If such laws were enacted by the States and Territories the very serious penalty to follow desertion from the service would be known to the man upon enlistment. This knowledge would operate to steady many men

who think of consequences, chances of escape and detection in after years. It would deter large numbers from commission of the act."

Some action along the lines suggested should be taken. As a further measure, however, and one that could be taken by the military without help from others, the following is offered: In the case of each deserter not immediately apprehended publish in at least three issues of at least one of his home papers the fact of his desertion and the amount of the authorized reward for his apprehension. This would not only arouse interest from time to time and render apprehension more likely, thus acting as a deterrent, but might restrain many a man from commission of the act because of a desire to avoid the publication of his shameful deed among his friends and relatives. Further, it would cause families and friends to exert all their influence to induce men not to desert, but to remain in service until exit could be honorably secured through one of the various channels provided by law.

This would cost a few thousand dollars annually; but from year to year as desertions decreased under its influence the cost would be constantly less, until a comparatively small minimum would be reached. A deserter is an expensive luxury to the United States, and it is believed that if this scheme resulted in even only a very small decrease in the present rate it would be a real economy. When public interest in and regard for the army reaches that point where the deserter will no longer be practically harbored, but regarded and treated as any other known criminal, it will be evidence also that citizens generally have ceased to regard the man in uniform as possibly a necessary national asset, but an altogether undesirable one except in time of war. As a body, our enlisted men all have at least a common school education, while many of them have still more; as a class they are honest, intelligent, upright and self-respecting, yet the general disposition is to regard them as quite the contrary and inferior beings whose social touch contaminates in greater or lesser degree. Men in uniform are looked at askance, and they know it. Heads of families do not welcome them as visitors into their houses, and young women of the best characters do not generally care to appear in public places with them in uniform. All this makes the self-respecting soldier feel that he has lost something dear to him by service in the army, and consequently not only lessens any love he

may have for it, but in many cases is an almost overpowering element of discontent and disgust.

It may be said that water seeks its level; that in this country, at least, men will naturally arrive at their proper social status, etc.; but such trite sayings are not strictly applicable in this case. The great body of good men have to suffer for the deeds of the very small minority. A man in uniform is conspicuous and is marked wherever he goes or whatever he does. He may be seen drunk on the street, mixed up in a row, or doing some other objectionable thing, and the memory of it remains a long time with every witness simply because of the uniform. Thereafter, the sight of another uniform will almost invariably recall the incident to the discredit of both the uniform and the man who wears it. The same witness may have seen civilians associated with the soldier at the time, but their presence is soon forgotten—the uniform made an abiding impression that will always thereafter, unconsciously perhaps, be more or less associated with wearers of it in general.

Things are not demanded for the enlisted man to which he is not entitled on his own merits, nor which he does not want. Admission for him into the ranks of the "400" is not asked, nor the glad hand indiscriminately as he passes down the street; but his profession is an honorable one, and certainly as long as he takes an honorable part in it he is entitled to that decent and kindly attitude accorded by the public to other honorable men of other honorable callings. The fact that this is not always the attitude of the public toward him, and the knowledge that, while not regarded exactly as a social outcast, his social status is not, in the majority of cases, as good as before entering the service, even among his former friends and acquaintances, does not add comfort to a life hard enough at best or tend to create and maintain that pride in his uniform and calling which every soldier should have and the possession or lack of which must certainly influence the action of many a man in remaining in or leaving the service.

A certain percentage of roving, weak, insubordinate, impossible-to-satisfy characters creep into the service, and the elimination of all causes after enlistment not inherent in these men themselves would not reduce the number of desertions due to these defects of character. There are men who could not possibly remain in any situation or at any given place for

three years. They are so constituted that they must have change. They had it constantly in civil life, as an examination of their records there would show, and they do not find military life sufficiently attractive to change the habit of years. Hence they desert. Some times they transfer from one company, regiment, corps or post to another a few times before deserting, but this is usually only a prelude. The remedy for this phase of the disease lies in the recruiting office and has already been discussed. Some are so naturally and by habit weak, badly balanced and insubordinate that they will not submit to proper restraint, discipline or guidance of any kind. Each admonition is an affront, every warning an insult, while an actual punishment, however slight, is something not to be tolerated at all. In civil life such things were answered at once by quitting the job, and they see no good reason why the same reply should not be made to the military.

The writer has known of men enticed from the service by others who had deserted and then wrote back of good jobs to be had. In fact, such a case occurred in the company commanded by him only a few months ago.

Some enlist simply for the opportunity of making a first heavy drawing of clothing which is then sold, the men immediately deserting, and soon again going through the same process in some other locality.

Others enlist in organizations under orders to change station to some point where they wish to go, and on arrival desert. Two such cases occurred in the writer's company a few years ago, just prior to its sailing for the Philippines.

The proper remedies in all these cases have been pointed out. Homesickness and letters from friends and relatives are responsible for many cases. Possibly a young recruit after only a short service cannot resist the desire to see the home folks again, and accordingly goes home, it may be with authority or possibly without, and remains longer than he intended, is afraid to return, and ends by deserting.

Many times and for various reasons married men enlist as single and afterward desert because of their families.

Young fellows disappointed in love or business, or for any one of a hundred reasons, sometimes seek the service as a sort of oblivion, and later, affairs on the outside assuming a brighter aspect, leave it by the only ready, easy and quick avenue that presents itself—desertion.



These are only a few illustrations of the numerous causes outside the service, or that have their origin there, that induce desertions, but are sufficient to demonstrate the fact that many of them are beyond the reach of any cure-all that may be in the military medical chest. In all of these cases the men either will not or cannot avail themselves of any of the legitimate means provided by law for exit from the service, and the result is desertion, for which the military authorities are in no way responsible except in so far as proper care, which would have prevented by far the great majority of the enlistments, was not exercised at recruiting stations.

It might be suggested that if more or easier means of honorable exit were provided, or the term of enlistment reduced to two years, desertions would be materially reduced, and the writer has no doubt of the truth of either proposition. But to provide more or easier means of exit than now exist prior to expiration of the enlistment period would practically amount to an option to leave the service at will and would not be advisable either as a matter of economy or service efficiency. To reduce the period of enlistment would not, for the same reasons, but more particularly on the score of efficiency, be wise.

Finally, punishment for desertion should be more severe. The present system of confining convicted deserters in post guard-houses should be discontinued, a central prison re-established and the minimum punishment fixed at three years.

In discussing violations by the enlisted man it has been necessarily impossible to avoid more or less reference to certain sins of both omission and commission by the Government or its agents. Violations by the Government not already thus referred to will be discussed after first summing up its obligations.

#### OBLIGATIONS OF THE GOVERNMENT.

The Government expressly agrees to accept the services of the man as a soldier; not to hold him longer than three years; to give him the compensation established by law and to govern him according to the provisions of laws enacted by Congress.

The man has a right to assume that "the nature of the service" was fairly explained to him before enlistment (see par. 863, A. R.), and that a great government, through its agent, has not negatively deceived him into making a contract



which he might otherwise not have made; that the Government is responsible for the acts of its agents; that the manner and bearing of all Government agents (officers and others in authority) in their dealings with him shall be governed by the ordinary rules of fairness, courtesy and common decency and in accordance with the provisions of pars. 2 and 3 A. R.; that for distinct violations by either party of either the express terms or the fairly implied ones of the contract the other has proper and usual recourse; and that the duties that will be required of him will only be those properly assignable to a soldier, the necessities of the service being considered.

The express obligations of the Government are so few and clean-cut; that no discussion of them beyond their mere mention is necessary.

#### VIOLATIONS BY THE GOVERNMENT.

As violations by the enlisted man have been frankly dealt with, a spade being called a spade, so indeed must those by the Government be treated, else the discussion be fruitless. Before discussing them, however, lest a wrong deduction be drawn from what follows, the writer feels impelled to reiterate the opinion gained from more than twenty-two years' service as enlisted man and line officer, together with some staff service in various capacities, that for the majority of violations, minor and major, by the enlisted man he, and he alone (ignoring errors in the recruiting office and considering only the fact that he has been admitted to the service), is responsible.

Does the agent of the Government (the recruiting officer) always *fairly* explain "the nature of the service" to applicants, that is, describe the things they will be called upon to do? By this is not meant to ask is explanation made of the thousand petty details of service, for such would be practically impossible, but of those larger features that directly interest them and that would ordinarily affect the action of any sensible man in considering a contract. Does he tell them that at times they may do quite as much soldiering with pick and shovel (in the line of fatigue duty) as with a gun; that they may be, and, in fact, frequently will be, called upon to do certain things for officers that are menial in character and degrading to persons not accustomed to doing them? Does he tell them of the guard-house and explain the system of fines and punishment? Does he tell them that although

the clothing allowance is more than ample, yet the issue system is such that many of them will have to pay from a few cents to a good many dollars for clothing, thus in effect being deprived, without fault on their part and without necessity, of the pay promised? Does he fully explain and discuss the solemnity of the oath of enlistment, tell them of the quality of obedience required, and point out the fact that desertion is a serious crime and not a mere breach of contract?

Does he always do these and other things along the same line? No. His failure to do so is a violation by the Government and constitutes it an accessory before the fact to every violation by the enlisted man the commission of which was influenced in any degree by any of these things which he had a right to know, but did not, before entering into the contract. The practice of any of these things on men after entry into the service is a still further and positive violation and the best way to avoid them is simply to avoid them. Stop them, and there will be no necessity for their explanation in the recruiting office; but in the mean time, as long as they exist, require recruiting officers to explain them. See to it that recruiting officers comply with that provision of par. 863 A. R. which says: "Recruiting officers will not allow any man to be enticed into the service by false representations." The failure to *fully* represent is a false representation in the sense of this paragraph.

In their dealings with the enlisted man the great body of both officers and non-commissioned officers are undoubtedly governed by the "ordinary rules of fairness, courtesy and common decency;" but here and there one is to be found who is not so governed. Fortunately these are very, very few, but their leaven of evil effect is out of all proportion to their number. Men should not be coddled, nor is it expected that those in authority shall practically say "please" in their requirements, for such things are subversive of discipline; but there is a middle line between them and wanton humiliation, brutal reproof or sneering indifference that should be followed at all times. Language and manner are sometimes employed toward enlisted men that would never dare be used in dealing with official equals. The writer well remembers one such officer in the large garrison where he served some years ago as an enlisted man against whom practically all the soldiers harbored resentment, either from personal humiliations suffered at his

hands or as the result of those inflicted upon their comrades. They would walk a long distance out of their way if possible to avoid saluting him. Such a man cannot enforce discipline in its best sense. Violations, minor and major, by the men were more frequent in the organization of which he was a member than in any other in the garrison. These are bald, ugly statements, but every officer of much service knows that there are a few officers of the kind described.

The 30th Article of War provides a method of redress for the soldier who thinks himself wronged by an officer, but who ever knew of its provisions being enforced? In some few cases where abuse was flagrant officers have been severely punished, but as against these there is a daily multitude of petty nagging, irritating ones just as hurtful to the pride and self-respect of the men and for which they have no practical recourse. Very few men care to constantly complain to the commanding officer, but nurse their grievances instead and resent them in the only easy, ready way at hand—some form of violation. Even were complaint made in every case and redress had, yet the sting would not be entirely removed.

The chief remedy is the cultivation of a higher ideal of duty and finer sense of justice toward, and consideration of, others among the few offenders. A powerful stimulus toward such cultivation would be the general knowledge among all concerned that beyond the question of a doubt proper superiors would promptly and thoroughly investigate all complaints and as promptly and thoroughly mete out exact justice.

In the matter of recourse for violation the advantage is all with the Government. Quick and positive action can be had against the man if present, but he cannot always get as satisfactory results, and knowing this, many times makes no effort, but takes such ready action, even if unwise and unjust, as suggests itself to his resentment. That the Government at times has little regard for the terms of the contract, except in so far as it binds the enlisted man, has very recently been pointedly illustrated. A few months ago General Orders announced that the First Regiment of Infantry would sail for the Philippines in January, 1906. The Government did not wish to send any men abroad with less than a certain period to serve at date of sailing and made a proposition that it would discharge from their existing contracts such of them as wished such service and would agree to make another three year contract with it

the day following discharge. A great many men accepted this clear-cut proposition, thus contracting for a total of more than three years' service, part of which was to be in a particular place; whereas, without said voluntary proposition by the Government many of them would not have contracted for more than three years' service.

After the men thus fulfilled their part of the bargain so far as they could, the Government calmly broke its inducing promise by revoking the order for the regiment to go to the Philippines and ordering another instead, and this not as a matter of necessity, so far as known, but for some other reason.

The essence of the illustration lies, not so much in the exposition of injustice done, which is bad enough of itself, but rather in the manner of its doing. It forcibly illustrates the sometimes calmly arbitrary disregard of the Government not only for the reasonable and proper convenience of the enlisted man, but also for his actual rights. Whether or not unjustifiable injury resulted from the act of the Government is not the point; the fact remains that the Government seems to reserve to itself the privilege of arbitrarily disregarding its contract obligations.\*

It certainly concedes no such privilege to the enlisted man. It is not intimated for a moment that in the ordinary case the Government should consult the men as to the orders to be given them, but, having consulted them and secured their performance of certain things upon a promise to itself do a certain thing, it should carry out the agreement in the absence of a compelling necessity to do otherwise. The Government does not always by its acts seem to concede the application of contract law to itself in its agreement—the enlistment oath—with the enlisted man, but at the same time exacts its very letter from him when it chooses. The result needs describing to no man with a knowledge of men.

#### CONCLUSION.

The chief obligation of both parties to the contract is to deal fairly by each other.

The enlisted man is wholly responsible for the majority of his violations.

\*This was written prior to the publication of the second order directing the regiment to proceed to the islands. The issuance of this latter order, however, in no wise affects the point illustrated.—AUTHOR.

The Government is partially responsible for some of them. The attitude of the public influences others.

There would be a certain amount of violation if both men and Government were as nearly perfect as is humanly possible.

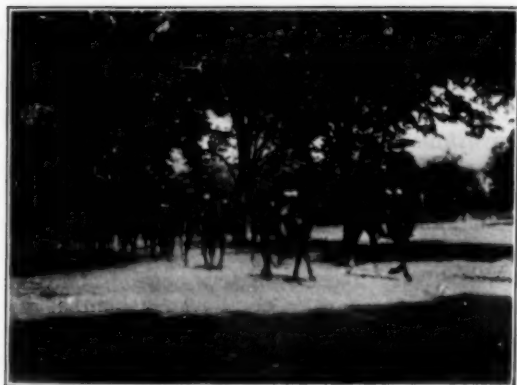
The Government is wholly responsible for all its violations.

Proper remedies for Government violation are clear and lie within itself.

Violations by the enlisted man will be materially reduced, and in corresponding degree, when violation by the Government is reduced, the recruiting service reformed, better pay offered and more frequently, the average quality of the men raised, a service corps is provided, the beer feature of the exchange is restored, captains approximate the ideal as nearly as possible and absent ones return to their companies and the present attitude of the public toward the soldier in general, and the deserter in particular, is changed to a proper one.

X. Y. Z.





SWISS GENERAL AND STAFF.

## THE SWISS MILITARY ORGANIZATION.\*

BY CAPTAIN T. BENTLEY MOTT, ARTILLERY CORPS.

### II.

#### FIELD-ARTILLERY INSTRUCTION.



HAVING given an idea of the broad lines of training, I will now describe more in detail a single day's exercise, taken at random in the course of shooting practice, at which I assisted at Thoune, one of the three artillery exercise camps.

There were three batteries assembled complete in every detail, ten caissons to the battery, six horses to each carriage, etc. The major commanded and instructed his group, but under the constant supervision of the chief instructor of artillery (having the grade of division commander).

The men were recruits who had already had six weeks training; the non-commissioned officers were doing their regular course of service; the battery officers were lieutenants doing a recruit course as candidate-captains, expecting to be recommended for promotion. The allowance of ammunition was 600 rounds per battery (four guns) for the course.

The first six weeks having been spent in every variety of

\*Continued from March JOURNAL.

preparatory exercises, drill and instruction, the shooting occupied the last two weeks.

The three batteries assembled at six o'clock. The first battery to fire was in readiness, the others performed some simple evolutions under the sergeants at a walk. All the officers of the group were present at all the firing, took notes and heard the *critique*.

Colonel Kuntz (chief instructor of artillery) directs Lieutenant A—— commanding the first battery, to join him where he should halt, leaving the battery in rear. Colonel K—— indicates the target, a thick line of skirmishers, and roughly the place to establish the battery. Lieutenant A—— joins his battery at a gallop and gives his orders for coming into battery, likewise, if he sees fit, communicates the elevation for the first shots so that the sights can be set as the battery moves up. This it does at a trot. The guns are unlimbered. Lieut. A—— takes post on say the right flank, shows the pointer of the right piece the target and directs him to fire a round of percussion at once, with sight at sixty (this means he estimates the range at something over 2000 meters). The first shot falls short; he commands sixty-eight, the shot is lost in the dip beyond; he tries another at sixty-eight, it is over; drops to sixty four, it is over. Each gun in the battery keeps the sights to correspond with the gun shooting. Lieut. A—— decides that sixty is the right elevation and commands two shots from each gun, salvos, percussion, at sixty, at the same time directing each gun to take its share of the target. He next orders two volleys with shrapnel, shot at sixty. They fall short; he raises to sixty-two, and so on until Colonel K—— orders cease fire.

All the officers then assemble around Colonel K——. The major commanding the group steps forward, note-book in hand, and begins his criticism. He first speaks of the method of coming in battery and location of the guns, invariably saying it was good or bad and why it was so. He then takes up the ranging shots, examines in detail the method of establishing the long and the short fork, explains why it would have been better to creep up from the short shots to the target rather than establish a fork, etc. He then criticises the opening with shrapnel, finds that it would have been better to fire two ranging shrapnel before opening with volleys, etc.

The major having finished, the instructor, Colonel K——, goes over the same ground, but with more authority. He may



differ with the major's conclusions, and if so he frankly says it and gives his reasons. The criticism is for the major's benefit as much as for the battery officers, and the instructor does not hesitate to show him where he is probably wrong. The instructor being an expert in this fire, and as he watches and notes the firing of some 5000 shots a year, his opinion is accepted with great deference.

Sometimes Colonel K—— calls upon a junior officer to make the criticism instead of the major. This keeps each officer present on the alert and he notes each shot and forms an opinion, thus constantly exercising his judgment and observation, and giving



BATTERY DRILL.

him mental practice in reasoning out the problem which his comrade is working at practically under his eyes.

Colonel K—— now gallops off to another position, Lieutenant A—— joins him and all proceeds as before.

The first battery now moves off and the second is ready in rear. Colonel K—— takes post elsewhere, Lieutenant B—— receives instructions as to his target (a battery) and where to come into action, and the second battery opens fire. Just as Lieutenant B—— has gotten the range with percussion shell and is about to open with shrapnel at 3000 meters, a line of skirmishers rises suddenly up in the gulch between him and his target. (Colonel K—— has secretly given the signal for these targets to appear). Lieutenant B—— must do something at once. The skirmishers seem about 1200 meters off. He com-

mands sight forty, percussion shell, fires his flank gun twice at forty, drops to thirty-two, raises to thirty-six, orders two volleys with shrapnel at thirty-two then two more at thirty-four, then two at thirty-six, then at thirty-eight (I quote from my notes).

Colonel K—— orders the cease firing. The major criticizes the establishing of the pieces in a line too oblique to the line of fire, finds that the distribution of the target among the guns was unnecessarily delayed, etc. He thinks that when the line of skirmishers suddenly appeared to begin to establish a fork was a mistake, etc.

Colonel K—— goes over the ground more carefully and says that the major is partly right, but he would go even further and say no percussion shell should have been used at 1200 meters, but shrapnel at once, says why, etc.

The third battery now comes up and goes through its exercises, shoots at a target, changes position and exercises at another target.

The range at Thoune is not good beyond 3000 meters, and for the closing weeks of a shooting school, officers go to Zurich and practice at ranges up to 6000 meters.

The Thoune range is rather tricky, full of dips and gulches, making the estimate of ranges no easy matter. There are several patches of woods and ravines. The targets represent artillery in battle, infantry lying, kneeling and standing, in skirmish lines and in thin advancing columns. Some are fixed and some disappearing; all are of pine boards covered with blue paper. The observers are in shell-proof shelters and employ the usual means of plotting the point of burst of each shot.

One of the targets consisted of a long beam mounted on wheels, with sockets for inserting targets. By means of wire rope and pulleys this row of targets was made to advance when desired and at any ordinary speed.

The apparatus could be made readily by a carpenter. The trouble is that a shot hitting the wheel stops the advance.

Everything done or used at Thoune is marked by absolute simplicity. They seek no complications whether of instruction or material. The whole desire is to teach officers to get in their shots quickly and effectively and observe rapidly ordinary targets over average ground.

By this time it is ten o'clock, the shooting is over and each battery drills at battery movements over the broken ground

for half an hour. Then there is drill of the group (our battalion) for an hour and at 11.30 the morning's work is over and all return to barracks.

In the afternoon, while the men are cleaning guns, harness and horses, the officers are assembled in one of the beautifully arranged lecture-rooms—quite like a college amphitheater. Here Colonel K— delivers a short lecture on the general technical features of the morning's firing. Meantime the observers at the butts have brought in a report of the hits on each set of targets at each firing and also a table showing the true point of burst of each shell. These are plotted on the blackboard, but covered with a sheet of paper whereon is marked the *observed* points of burst. A discussion is made by Colonel K—, mingled with questions, using the observed points as illustrations; he then removes the paper and shows the true points of burst. The deductions useful to the case are made, the mistakes in observation are pointed out along with their probable causes, and the officers are dismissed.

By this time the men have finished the stable work and are formed with the officers for various drills for the rest of the afternoon. Practice in estimating distances is generally carried on diligently at this time.

This represents a typical day's work during the firing exercises.

The targets were for the most part the same, in regard to mechanical arrangements for moving and disappearing features as those described in the chapter in Wallenstadt (see article by Captain Mott in the *Infantry Journal* of Jan., 1906) These artillery targets, however, did not fall when hit. Also there were naturally more targets representing artillery. Some of these were old carriages with steel shields, to show the effect of shrapnel and percussion shell on the new guns.

It may be interesting to here note the admirable arrangements for taking care of the various details of officers and men which succeed each other for the different courses at Thoun. The barrack holds with ease 1000 men. These arrive for training completely uniformed and equipped. They find beds, blankets and all other necessities ready for them. The wash rooms, refectories and dormitories are models of Swiss neatness.

The officers are similarly lodged in one end of the barrack. Each field-officer has a completely furnished room, junior officers are two and three in a room, but they have to bring noth-

ing. Their barrack is run after the manner of a hotel, the state furnishing all except food. This is to be had in the excellent mess. Thus the classes succeed each other at Thoune with the least possible trouble or delay.

Similar arrangements exist at the other training places.

The three weeks' "shooting course" is generally held at Thoune. This is both an examination and a training of the first lieutenant before he can aspire to a captaincy. If he does well he is sent to a recruit course as candidate captain, and then, if later on he is promoted to captain, he must again go through this three weeks' training in shooting.

During all the "courses" at Thoune the material, horses and men are on an absolute war footing, so that all hands become



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accustomed to things as they would be in campaign. Indeed, in Switzerland there is no such thing as peace effectives or peace footing; whatever is done is done on strictly a war basis.

#### NOTES ON THE MATERIAL.

The gun is the new Krupp field-piece made specially for Switzerland, and comprizing many modifications—all in the line of simplicity—demanded of Krupp by the Swiss committee which presided at the numerous trials—competitive and otherwise—which after six or eight years have finally resulted in the definite adoption of this piece.

This is not the place for a technical description of the gun,

but I may as well remark on a few features. The photographs herewith are due to the kindness of Captain D. W. C. Falls.

The sight is of the open pattern having no collimator or panoramic feature. It has an independent line of sight allowing correction for angle of site, with a cross level for rectifying difference of level in wheels. The sight all other and graduations are in thousandths of the range, so that there is one nomenclature for all. The instrument is strong, handy and simple to read and manipulate.

The gun is perfectly steady during recoil on ordinary soil; it has a folding trail O handspike, a wide but shallow spade, and a flat shield with hinged apron, but when limbered many of the parts are below the level of the axle.

The caisson in action is to the left and slightly in rear of the piece and all the men serving piece and ammunition are not so well protected as in the French arrangement of gun and caisson side by side.

The caisson chest is exactly similar to the limber chest, and each carries forty-eight cartridges. The caisson body is provided with a shield and bottom apron similar to that on the gun. In action the caisson trail rests on the ground supported by a short stationary prop. The ammunition (fixed) is packed in wicker baskets, four rounds in a basket. The baskets are carried to the piece and opened. The fuse is of the dial type, turned with a straight key.

On each caisson body, strapped to the right of the shield, very much in the fashion of carriage lanterns, is a wicker case for holding a square lantern. The lantern can be slipped from the wicker case when required for use as a hand lantern.

On coming into action each gun limber moves off with the other teams to cover, preferably on the flank and rear. Six caissons are left with the guns, their limbers joining the gun limbers and the other four caissons. The officers' horses are led off by the swing drivers on unlimbering. In limbering, the cannoneers raise the gun trail at an angle of about forty-five degrees and keep it there till the teams come up close. This is to show the drivers the direction, whether to come limber front or limber rear. The greatest liberty is allowed as to manner of limbering, little formality other than as above noted being observed. On the march and moving into action two men ride standing on a step fixed to the gun axle, and other

three cannoneers ride on the limber chest. The other two cannoneers ride on the caisson limber.

The draft horses all have collars, the riding horses of sergeants, etc., are provided with breast-straps and coiled rope traces as in the French service.

#### THE STATE HORSE ESTABLISHMENT OR RÉGIE

While on the subject of Thoune I will give an idea of the *régie* or depot for state horses kept at that place.

The establishment is under a director, a colonel of the permanent force and assistants. Its real object is to provide a number of suitably trained riding horses, ever ready in case of war, for such general and staff-officers as may need extra horses, and for infantry field-officers. In time of peace it serves to provide mounts for maneuvers, for officers attending various courses, for officers attending the schools of equitation, and to a limited extent, it sells horses of suitable blood and training to officers.

These horses are never used for cavalry service; the cavalry buys and trains its own horses. Usually 600 horses are on hand. Of these some are undergoing training and some are for service.

When corps maneuvers take place the depot is ordered to provide so many horses for such and such purpose. The courses at the central schools are about to begin and the depot sends to each place where a school is held enough horses to mount the officers (for staff journeys, etc.).

A school of equitation for infantry officers at Thoune is about to commence, the *régie* is ordered to supply so many horses for this purpose.

On mobilization for war all serviceable horses on hand would at once be distributed to higher officers who did not have their own.

*Purchase.*—The horses are all bought by officer buyers in the following countries, named in order of importance: Ireland, north Germany, Hungary, Switzerland; all are unbroken. They try to get them (geldings and mares indifferently) from four to four and one-half years old; but in Ireland this is now nearly impossible as buyers from all over Europe are there trying to get good types of the hunter class for military schools, and they buy the best three year olds, and when one looks at a lot at four years old, the best have been picked over. So Switzerland buys many of hers at three years.

The average price paid for these colts—wherever bought—is from \$200 to \$350. The buyer has a lump sum and he pays less for some horses and more for others. A few trained five-year-old Irish horses capable of showing their quality across country are also bought each year; for these about \$500 is paid. I saw in the stables a dozen of these—fine specimens of the Irish hunter.

Some 160 horses are bought each year. They are watched, carefully fed and acclimated during three months. For the most part they run on grass, are stabled at night, well groomed and fed grain. Their training begins when about four and one-half years old, in harness, alongside of an old horse. This goes on for three months. Then, when coming five years, according to development and precocity, they are broken to the saddle and given progressive work and weights.

This training is all done, as at Berne, by civilian trainers who do nothing else. There are sixteen of these excellent men at Thoune. They put in seven hours a day mounted. All the grooming, etc., is done by civilian employees, and it is thoroughly well done.

After usually one and one-half years of work leading up to the three gaits and jumping all sorts of obstacles, the horse is considered ready for service and is sent to one of the schools, to maneuvers, etc., as required. It can be seen that the Swiss officer gets a chance to know what a good horse is from the very first, and I would say that in general, arm for arm, he is, whether on his own or a government horse, far better mounted than the American officer. His riding is generally indifferent, as would be expected from the short time he has to learn in.

There are three large riding halls at the *régie* and three more at the training barracks. It is in these halls that horse training and riding instruction are given. To the latter come infantry officers for regular courses, veterinaries, doctors and staff-officers.

The infantry officers begin with three hours a day, plus one hour of horse gymnastics, raise to four hours, then to six.

After these school terms, when the horse has been used by unskilful hands for many months, he is returned to the *régie*, as the director puts it, "for repairs." He is gotten in good shape again by the trainers and goes out for another season of instruction.

Officers can occasionally get authority to buy a horse from



the régie; the surplus, usually the worst, amounting to about 150 a year are sold to Swiss citizens, who bind themselves not to sell the horse, not to send him out of the country, and agree to hire him to the government when wanted for maneuvers and similar service.

I examined all the horses and stables. They were beautifully groomed and the equipment well kept. The stables were airy and clean. About a hundred of the high-class horses were in box stalls. My visit was entirely unexpected and unannounced, but everything was as if prepared for inspection.

#### POSITION OR SIEGE ARTILLERY.

This is composed of twenty-five companies of foot artillery divided into groups of five companies each (two élite and three Landwehr). The armament is mostly twelve centimeter (five inch) guns and mortars. This force is attached to armies when formed.

#### FORTRESS ARTILLERY.

There are only two "fortresses," St. Gothard and St. Maurice, each being really a region of passes with several distinct fortifications. To the first region are assigned two "divisions" of fortress artillery, in all eight companies, plus two machine-gun companies, each company having either six or eight guns, and a sapper company.

To the St. Maurice forts are assigned three companies of artillery and a company of machine guns (twelve pieces) and a sapper company.

These organizations were created eight years ago to man the mountain defenses of St. Gothard and St. Maurice. The men come from the territory immediately around these places and all their military training is carried out in the immediate neighborhood of the forts. In winter the forts have small permanent detachments of caretakers.

The question naturally arises, Why have the Swiss defended these two passes and left the whole of their frontier to the north, east and west open? A distinguished officer to whom I put this question answered with a smile that it was doubtless because the Italian frontier could be so readily and cheaply defended and it sounded well to make a start in creating frontier defenses. To pretend to fortify the French, German, or even the Austrian frontier would require an immense outlay.

It may, moreover, be remarked that most likely the Swiss chiefly fear a violation of their neutrality by the Germans. If the Triple Alliance were at war and such violation took place the Swiss have made their backs safe from invasion via Italy, the French frontier under these circumstances would need no defense and the whole field army would be free to defend the German frontier and the small strip assailable from Austria.

#### THE ENGINEERS.

The army is justly proud of its engineers. They are recruited, both officers and men, from experts in civil life. The bridge trains come largely from the skilful river boatmen, and the railway and telegraph troops are all professionals in those callings.

A most excellent balloon establishment exists at Berne.

The topographical bureau is a model of its kind, and the staff maps of Switzerland (scales 1:25,000, 1:50,000 and 1:100,000) are perhaps the most perfect specimens of this work in the whole world.

The every-day Switzer probably uses maps more than any other man of corresponding class; and at maneuvers, and even small field exercises, nearly every man, even the private, is given a map, and he uses it with remarkable intelligence.

#### THE GENERAL STAFF.

The general staff is organized on lines familiar in the German staff. It consists briefly of:

Officers of the general staff, adjutants or assistants detailed from troop officers, officers of special arms or services, secretaries or clerks.

The chief of the army general staff has under his orders an organization divided as follows:

1. Staff section; operations, correspondence, post and telegraph.
2. Section of roads and railways, forwarding of supplies.
3. Adjutant general's department, reports, police, headquarter troops, guard.
4. Chief of artillery.
5. Chief of engineers.
6. Surgeon general.
7. Chief veterinary.
8. Judge advocate-general.
9. Chief commissary—pay, clothing, equipment, lodging.

Corps and division staffs are organized on the same lines. There is a general staff school for forming officers who desire to enter that service.

The first course is for lieutenants and captains, lasts seventy days and includes a staff ride.

The second is for captains and majors who have formerly pursued the first course successfully, and lasts forty-two days and includes a staff ride.

General staff officers are called out six at a time to each territorial subdivision headquarters to do the work of those headquarters.

#### THE CORPS OF INSTRUCTORS.

The permanent personnel of the Swiss Army consists of 200 officers known as "instructors" of the 1st, 2d and 3d classes. They are generally selected when young and advanced in rank



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till the highest grade is reached about the age of forty. They may or may not be assigned to command of a unit—regiment brigade, army corps, etc. Not more than one-fourth, however, may be so assigned. This is done to prevent the professional officers from getting all the higher commands, to the discouragement of the non-professional or militia officers proper. The instructor, therefore, does not take the place of the commander of a unit, but is his adviser.

A lieutenant having passed with credit through all the

courses for his grade (as recruit, as candidate-corporal as corporal in a recruit course, as sergeant in say division maneuvers, as candidate-officer, shooting school of Wallenstadt as officer, recruit school as officer, one or two regular training courses of his regiment) may make application for the post of instructor, meaning thereby to embrace the army as his sole and permanent profession.

By this time he is well known to his superiors, and if they—especially his immediate instructors—recommend him, he is appointed candidate-instructor and is assigned to the arm he asks for and given station at a training camp. (An officer seeking the post of instructor must almost always be a university graduate and especially must have taken the military course at the Ecole Polytechnique of Zurich; he must be of good respectable family—generally he has some little income of his own). Here he works under the head instructor, in the various courses, teaching recruits, non-commissioned officers forming officers, etc. He spends practically the whole of his time all the year round out of doors with the various classes undergoing instruction, aiding, advising, correcting and noting.

Upon the excellence of his work depends his promotion, which is strictly by selection on the recommendation of his superiors. Some instructors never get beyond third or second class.

Instructors are assigned from time to time to command regiments, divisions, etc., for their own instruction, but their chief work is at the various "schools" where they form the cadres of the army. During the autumn maneuvers they have no part unless as umpires. They meet once a year and make recommendations to the chiefs of each arm, to whom they are responsible. They thus keep the instruction throughout the army uniform.

Whenever these officers reach an age when they are no longer active enough to be useful they are simply put out; no pension or pay whatever is given them.

Promotion, as explained before, above the grade of second lieutenant is strictly by selection in the Swiss Army and the result of this system is seen in the youthfulness of the higher grades. Lieutenant-colonels of thirty-five, brigade and division commanders of forty-five, chiefs of arm under fifty, etc. I have seen but one Swiss officer who seemed what we could call "an old man."

The law absolutely restricts this selection to those officers recommended by their superiors. The political power appoints, but may not appoint anyone unless recommended by his chiefs. The cantonal political authorities appoint up to major in the infantry and captain in the cavalry; the central authorities to all higher grades.

I am told there is the play of influence inevitable in republics as well as monarchies, but it is never flagrant, and if some good men are passed over a bad one is rarely chosen and never twice.

#### CLOTHING AND EQUIPMENT.

The Swiss soldier is very well and neatly dressed and equipped.

Each man receives one cap, one overcoat, one dress coat, one blouse, and one pair trousers, which he keeps at home. At the barracks there is given the men undergoing training a second suit for rough and dirty work. This suit remains at barracks and passes on from man to man.

The equipments are all of fair leather. The cartridges are carried in boxes at the waist belt and in a half-bandoleer. The knapsack is heavy (what one is not?), but is very compactly arranged and well composed. It is worn well down in the small of the back and does not at all interfere with shooting prone. The overcoat is strapped around it in the German fashion, the mess tin (black) strapped on the outside. The knapsack is of cowskin tanned with the hair on. A small haversack and canteen completes the equipment.

The rifle is habitually carried with the leather sling over the right shoulder, barrel to the rear and vertical, the right hand resting on the sling, forearm horizontal.

The infantry man's personal clothing weighs.	11	lbs.
Rifle and sling.....	10.5	"
Knapsack with overcoat but without rations or cartridges.....	20.25	"
Canteen full and haversack with 1 ration of bread.....	5.5	"
Belt, bayonet and pouches.....	3	"
Pick or shovel.....	2.5	"
150 cartridges.....	10	"
Two iron rations.....	3	"

Total..... 66 lbs.

The regulation saddle is excellent in shape and rarely causes sore backs. It weighs twenty-three pounds. Count-

ing everything, even the man's clothing, the horse carries seventy pounds besides his rider.

#### PAY, PENSIONS AND INSURANCE.

During periods of training officers and men are paid what is considered sufficient to cover expenses. It is not payment for services, properly speaking, but reimbursement of expenses only.

The following is the pay table per day:

	ACTIVE SERVICE	INSTRUCTION SERVICE
Major-general.....	\$6.00	\$3.40
Brigadier-general.....	5.00	3.40
Colonel.....	4.00	3.40
Major.....	2.40	2.00
Captain.....	2.00	1.60
Second lieutenant.....	1.40	1.00
Sergeant, mounted.....	.40	.40
Sergeant, foot.....	.30	.30
Private.....	.16	.16
Recruit.....	.10	.10

Every officer as well as every soldier receives a ration. An officer is allowed on instruction service eighty cents a day for foraging his horse. Horses are in principle furnished mounted officers in kind or by indemnity. Officers receive quarters in camp or garrison and traveling expenses on duty.

The ration is one and one-half pounds bread, two-thirds pound meat and one-half pound vegetables.

There is an invalid pension law on familiar lines which grants pensions to families of deceased or invalided soldiers varying from \$130 to \$20 a year.

Besides this the state insures every soldier against accidents during his peace training. This was formerly done by contract with insurance companies; the State now runs its own insurance office.

Unlike most countries Switzerland taxes the present to pay for future wars. For half a century she has been accumulating a fund to pay the pensions resulting from any future war. This sum now amounts to \$3,700,000.

#### USE OF PRIVATE LANDS FOR FIELD TRAINING.

In Switzerland as in nearly every other country except the United States the law permits the army during any of its work to maneuver over the fields of any citizen, all damages being paid

for. This authority is used with great discretion and the damages are small. All field work is much more usefully done across country than on a government reserve and except for target-practice and some cavalry and field-artillery exercises, the Swiss do not even desire a drill ground; their marching is done on the roads, their drill across the fields. Even for combat exercises of battalions and regiments a rough country is selected, the roads blocked, notices posted, danger flags hoisted and the firing begins.

England has a similar law, the text of which was sent with my report on the English maneuvers for 1903. The English and the Swiss are probably more jealous of individual and property rights than are any people in the world, but they have cheerfully acceded to the inexorable necessities of modern military training.

#### MILITARY TAX.

Every Swiss citizen, at home or abroad, between the ages of twenty and forty-four, who is not enrolled in the active or reserve armies, is obliged to pay a military tax. Between the ages of thirty-two and forty-four the tax is one-half.

Therefore, all men who are not accepted as recruits (about 50%) and all who for any reason whatever are excused from military service, pay the tax. The tax is of three kinds:

1. Military Poll tax of six francs.
2. Military Property tax of 15% of assessed value of property. Property under \$200 not taxed.
3. Military income tax of 1.5% on income.

The total military tax paid by any one person cannot exceed \$600.

The assessments are rigorously made and every penny exacted.

This tax is in addition to other taxes.

#### COST OF A SWISS SOLDIER.

Leaving out cost of rearmament, the Budget of the Confederation for 1901 was.....	Fr. 28,713,600
The budgets of the separate states of the confederation or cantons cannot be given exactly. An expert estimates it at from three to five millions per annum for all cantons, say.....	Fr. 5,000,000
Total for support of army.....	Fr. 33,713,600



Assuming the expenditure to be roughly thirty-five million francs, or seven million dollars, the cost of each soldier of the 200,000 in the first line (which can be instantly mobilized) amounts to thirty-five dollars a year. The second line costs nothing.

The annual appropriations for our army show that each regular American soldier costs twenty-eight times as much as his Swiss comrade.

To compare the availability of the two forces for war is not so easy as to compare the cost, though our force of regulars and organized militia taken together has about the strength of the Swiss active or élite army.

Switzerland can mobilize an army corps in three days, ready in every particular of organization, equipment, munitions and transport, to march against the enemy; she can mobilize four such corps at one and the same time. Just how many days it would require to concentrate in one place 30,000 of our regulars with all their baggage and transport, or how long to assemble four such commands of regulars and militia, it is difficult to say, but probably it would be nearer three weeks than three days.

Comparisons may be odious, but when to maintain 1000 men costs twenty-eight times as much in one country as in another, the relative readiness for war of the two forces is worth examining.

[TO BE CONTINUED]

## WHO LOST THE BATTLE OF WATERLOO?

BY COLONEL ROBERT W. LEONARD, LATE U. S. V.



he November JOURNAL contains a review of Houssaye's "1815" as "a valuable contribution to the literature of Waterloo," etc.

Houssaye certainly writes in a very convincing manner; he has produced an exceedingly attractive story, but like an historical romance, it should not be taken too seriously.

Frenchmen are too sympathetic to be quite accurate historians. If one has views that he wishes to enunciate and insist on, he writes a book; but as a partisan.

Houssaye seeks to throw the blame for the disaster at Waterloo on others rather than upon Napoleon.

Napoleon never would admit that he was wrong, or had made a mistake; he regarded such an admission as a mistake in itself, and was at a loss to understand the mental attitude of one who would voluntarily make a damaging personal admission. Many of Napoleon's admirers are also unwilling to admit that he was fallible.

Napoleon's failure to win at Waterloo may be attributed partly to his unfortunate selection of men to carry out his plans, but mainly to his unaccountable attacks of inertia. Everything that he was fighting for depended on his activity, yet twice he allowed hours, even an entire day, to elapse with hardly a move.

C. E. L. quotes Houssaye as saying that Ney was too circumspect on the 15th or the Sambre would have been crossed by noon.

Houssaye could hardly have made that error. The Sambre was crossed at noon by Pajol's cavalry at Charleroi. Reille crossed at Marchienne before noon and Gérard at Châtelet, just south of Fleurus.

Ney was not ordered to join till the 11th. He joined in such haste that he was unprovided with horses, and had but one aide. He reported for duty at five P. M. at Charleroi, on the north bank of the Sambre. Ney had purchased horses

from Marshal Mortier who was sick, but they had not yet arrived.\*

Ney with the rest of the marshals of the Empire went over to the Bourbons at the restoration, and all had been retained with their rank. Soult was Minister for War.

When the Court learned that Napoleon had left Elba and had landed on French soil, Ney was despatched with 6000 men to arrest him. Ney boasted that he would bring Napoleon to Paris in an iron cage.

On the appearance of the irresistible man before Ney's troops, the men threw away the white cockades and from pockets and knapsacks brought out the tricolor that had marched triumphantly over Europe. The situation was too much for Ney: he returned to his allegiance to the Emperor.

Grouchy had never commanded a larger body than a division. He had served creditably in the cavalry. It is his charge at Friedland that forms the subject of Messonier's painting—1807. He had just been appointed marshal and was given the command of the reserve cavalry consisting of four corps, commanded respectively by Pajol, Exelmans, Kellermann and Milhaud, numbering 13,784 men.

The campaign had hardly opened when he was relieved from this command, where he should have done well, and put in command of the right wing, consisting of the Third Corps (General Vandamme) and the Fourth Corps (General Gérard) together with a force of cavalry.

The promotion of Grouchy was bitterly resented by Vandamme, an officer who did not restrain himself in the matter of criticism. His expressions were coarse and vigorous. He thought that he should have been made a marshal rather than Grouchy, and did not hesitate to say so. Gérard regarded him as an interloper, and together they doubtless were a pair of most unpleasant subordinates.

Berthier, who had served on Napoleon's staff for nearly twenty years, had also taken service with Louis XVIII. On the return of the Emperor, not finding it possible to play with his allegiance as with a shuttle, he retired to Bamberg, in Bavaria, and there committed suicide (June 1st).

\*It is said he purchased horses from Marshal Mortier, the Duke of Treviso, who was confined to his bed by an attack of sciatica. Inasmuch as Mortier was in Beaumont, less than twenty miles from Charleroi, the statement that his horses had not arrived is not easy to understand.

Soult was appointed chief of staff. He had never before served as a staff-officer.

For years he had exercised high command, notably in Spain. He had always had a chief of staff of his own, to whom he left the details of administration and direction.

Soult was also an unsuccessful general; he and 250,000 Frenchmen had been maneuvered out of Spain and over the Pyrenees by Wellington, who never had more than 50,000 English, including the German Legion, under his command.

Wellington, however, had also an army of Spaniards and Portuguese, but on them he placed little reliance; not that the Spaniards were less brave than the Spanish infantry of Alva's time, but unfortunately for Wellington they were commanded by Spanish grandees, who felt that the campaigns, although fought in their behalf and for their existence, should be conducted with due regard to their grandeur.

Wellington said that he used to go down on his knees to these grandees, but "did not care a damn if they would only do as I wished."

His diplomacy almost equalled that of Marlborough, when he, the greatest living general, insisted on serving behind the chair of the first king of Prussia (grandfather of Frederick the Great), protesting that the honor was too great for him.

For this gratifying deference Marlborough got the "Old Dessauer," with 10,000 of King Frederick's unequalled infantry.

The "Old Dessauer" invented the iron ramrod and the equal step. Carlyle says, "The old Dessauer's word of command is still heard in every army in the world."

Davout was appointed Minister of War, and to the command of Paris. He begged for a command in the field. Napoleon said, "I cannot entrust the command of Paris to anyone else." Davout replied, "If you are victor, Paris will be yours, and if you are beaten, neither I nor anyone can do anything for you."

Ropes remarks: "What Napoleon lost by not having Davout with him in this campaign, is hard to estimate; but it would probably not be going too far to say that Davout in the place of either Ney or Grouchy would have prevented the catastrophe of Waterloo."

Marshal Ney was an unsuccessful general; he had been badly beaten at Dennewitz, September 6, 1813, by Bülow,

who now commanded a corps under Marshal Prince Blücher. At Dennewitz Bülow (henceforth Count Bülow Von Dennewitz) held his ground with 40,000 Prussians against Ney with 80,000. On the arrival of the Swedes and Russians, Ney retreated in great disorder.

The blame for the employment and assignment to duty of these marshals rests entirely on Napoleon. He must have known their capabilities and their limitations.

Soult was a failure as chief of staff. He too, would doubtless have done well in the place of Ney or Grouchy.

The marshals were all rich and famous; they had nothing more to gain, but had much to lose. The campaign would not have suffered had those who were employed remained on their estates, as did the rest of the marshals.

Let us follow the record of these four eventful days: At 2.30 A. M., June 15th, the Prussians were in cantonments from Thuin on the Sambre, (ten or twelve miles up the river from Charleroi) to Namur, at the confluence of the Sambre and Meuse, and on the Meuse from Namur to Liege, an extent of about sixty miles. Ziethen had the First Corps, with headquarters at Charleroi; Pirch I. commanded the Second Corps, with headquarters at Namur; Thielemann with the Third Corps lay at Ciney, about twenty miles southeast of Namur, and Bülow with the Fourth Corps was at Liege, about thirty-five miles down the river from Namur.

The English, or allies were in cantonments at Ghent, Audenarde and Tournay on the Scheldt, and in all the villages west of the Brussels-Charleroi road. The Duke of Wellington had his own headquarters at Brussels. Marshal Prince Blücher was at Liege.

The French lay between Valenciennes on the Scheldt and Charlemont on the Meuse, but at two-thirty on the morning of the 15th had practically completed their concentration, less than twenty miles south of Charleroi. Vandamme with the Third Corps was about two and a half miles from Thuin; the cavalry, the Sixth Corps (Lobau) and the guard lay between the Third Corps and the Emperor's headquarters at Beaumont (Beaumont is about eighteen or twenty miles southwest from Charleroi); the First Corps (d'Erlon) lay at Solre sur Sambre, twenty miles up the river from Charleroi; the Second Corps (Reille) was at Leers, some six miles down the river from

d'Erlon; Gérard, with the Fourth Corps was at Philippeville, twenty miles south of Charleroi and Châtelet.

At this time neither the Prussians nor the English had broken their cantonments, although the French were at their outposts.

In fact, it was not supposed that Belgium would be the theater of war. Three hundred and seventy thousand Russians and Austrians were slowly rolling toward France. On them, it was expected the brunt would fall.

The Duke of Wellington had "the worst army that any general was ever asked to command." His army was made up of English, the King's German Legion, Belgians, Nassauers, Hanoverians and Brunswickers. Of the 68,000 engaged in the Battle of Waterloo there were but 30,000 on whom the Duke could rely—24,000 of these were English and 6000 belonged to the German Legion. Seven thousand only of the English were seasoned troops, the rest were second battalions that were making their first campaign.

The flower of the Peninsular Army had met with defeat at the Battle of New Orleans (Jan. 8, 1815), and were not yet available for the field. Some of them were just then landing at Ostend. Ten thousand of the Belgians departed in a body from the battle. Col. Basil Jackson, in his "Notes and Reminiscences of a Staff-Officer," says: "I peeped into the skirts of the forest (Soignes) and truly felt astonished. Entire companies seemed there with regularly piled arms, fires blazing under cooking kettles, while the men lay about smoking." The Duke prudently distributed the 24,000 English and the 6000 of the German Legion among the heterogeneous array that composed his army, so that everywhere in his line there might be something that was firm.

General Ziethen was attacked at Thuin at four o'clock on the morning of the 15th.

He made such defense as was possible and retired to the left or north bank of the Sambre; his corps was at Charleroi at ten o'clock A. M.

No information of this affair reached the Duke till three o'clock P. M.

The Prince of Orange went to Brussels to dine with the Duke at three P. M., and brought the intelligence that Ziethen had been driven north of the Sambre, and that his own outposts at Binche had been attacked. The Duke then issued

orders for concentration at Nivelles, (six miles west from Quatre Bras). A little later Baron Muffling (the Prussian attached with the Allied Army) corroborated the information.

So far everything was in favor of the Emperor. He had taken his enemy unawares. They were in detachments from Ghent to Liege, more than one hundred miles apart, while the French were well closed up.

Gérard crossed the Sambre at Châtelet; Reille crossed at Marchienne before noon, about two and a half miles up the river from Charleroi. Pajol with his cavalry, 3500 strong, entered Charleroi at noon.

Reille marched on Gosselies, about five miles north of Charleroi, and dispersed the Prussians whom he found there. D'Erlon was also ordered to Gosselies to act in conjunction with Reille, but for some reason he did not cross the river till the next morning—June 16th.

The Napoleon of former days would have done something notable on the afternoon of the 15th; there was nothing to oppose him but Ziethen's corps.

Blücher was now hastening the concentration behind Fleurus at the villages of St. Amand, Bry, Ligny and Sombref of the three corps commanded respectively by Ziethen, Pirch and Thieleman. Bülow, with the Fourth Corps, marched from Liege to Hannut, twenty-five miles, and halfway to Wavre. At seven o'clock A. M., June 16th, Ziethen and Pirch were in position at Sombref.

Thieleman arrived about two P. M. Between noon of the 15th, at which time Napoleon's cavalry entered Charleroi, and two o'clock of the afternoon of the 16th, Blücher was allowed to get three corps of his scattered forces together at Ligny, only ten miles from the Emperor's headquarters at Charleroi.

If it were the intention of Napoleon to separate Blücher from Wellington and prevent their co-operation, it would seem a simple thing to have driven the Prussians on the 15th toward Liege, and then to have turned and dealt with Wellington. The French Army would then have been intact, over 100,000 strong, and all of them under the Emperor's eye and direction.

Here is a loss of twenty-six precious hours, and a neglected opportunity.

The Emperor attacked the Prussians between two and three



o'clock. At about six o'clock, just as he was about to make an assault on the Prussians that he intended should be overwhelming, troops were seen beyond St. Amand; the assault was delayed until it should be discovered if these unexpected troops were friends or foes. The newcomers were d'Erlon's corps, and they should have been taking an active part, either at Quatre Bras, or at Ligny. Participation by d'Erlon in either battle would have meant a complete defeat of the enemy. D'Erlon halted about two miles from the field of battle. One hour was lost; Napoleon's assault was not as effective as it would have been; darkness came on, and Blücher was spared something of that which his enemy had prepared for him.

By nine o'clock P. M. the Battle of Ligny had been fought. Blücher was retiring in good order on Wavre, leaving Ziethen to hold Sombref.

Ziethen appears to have been at Sombref the next morning, for the Duke sent Lt.-Col. Alexander Gordon with two squadrons of the Tenth Huzzars to communicate with the commanding officer of the Prussian Army.

Gordon found Ziethen at Sombref, returned and made his report, upon which the Duke observed: "Blücher has fallen back, so we must go too." (June 17th.)

Napoleon assumed that Blücher would fall back on Namur or Liege; he took very little trouble to ascertain, however, if this were really his line of retreat.

If Blücher went to Wavre it would be for the purpose of uniting with Wellington at Waterloo, a place that had been thoroughly examined by the Duke, by his engineers, by Sir Hudson Lowe and by Lowe's successor as chief of staff, Sir William De Lancy, and determined upon as the best place to fight a battle—if one were necessary—for the defense of Brussels.

We will leave Napoleon making himself comfortable for the night, ignorant of Ney's battle at Quatre Bras, only ten miles distant; Ziethen at Sombref, practically on the battle-field; Blücher marching on Wavre, and see what Marshal Ney was doing to further the plan of campaign.

At five o'clock on the afternoon of June 15th, Ney reported for duty at Charleroi, and was assigned to the command of the First and Second Corps and Kellermann's cavalry.

At midnight on the 15th, Ney returned to Charleroi for instructions. These were verbal, and it is not known what

they were. Napoleon afterward said that he gave Ney orders to occupy Quatre Bras that afternoon (15th). Napoleon said so many things at St. Helena about what happened on these eventful days, that much credence cannot be placed in his statements, unless otherwise verified.

The next morning at eight o'clock the Emperor wrote the following letter to Ney:

Charleroi, June 16th, 1815.

To Marshal Ney:

I send my aide-de-camp, General Flahault, who will present this letter.

The major-general (Soult) has given you your orders, but you will receive mine sooner, as my officers are quicker than his.

You will receive the order for the day, but I wish to write to you in detail, because it is of the greatest importance.

I am sending Marshal Grouchy with the Third and Fourth Corps of infantry to Sombref.

I will send the guard to Fleurus, and shall go in person before noon.

I shall attack the enemy if I find him, and will clear the road to Gembloux.

Then, according to events, I will determine what I shall do next—perhaps at three o'clock in the afternoon, perhaps in the evening.

My wish is that immediately after I shall have made my decision, that you shall be ready to march on Brussels. I will support you with the guard, which will be at Fleurus or Sombref, and I wish to arrive at Brussels to-morrow morning (17th).

You will march this evening, if I make my decision early enough, so that you can be informed to-day, and make three or four leagues this evening and be in Brussels at seven o'clock to-morrow morning.

You can dispose of your troops in the following manner: One division two leagues in front of the four crossroads, if nothing prevents; six divisions around the four crossroads and one division at Marbais, which I can draw to myself at Sombref if I need them.

This will not delay your march. The corps of the Count de Valmy (Kellermann), 3000 cuirassiers d'élite, at the intersection of the Roman road with that of Brussels, that I may draw it to myself if I have need. I wish to have with me the divisions of the Guard commanded by General Lefebvre-Desnouettes, and I will send you two divisions of the corps of Count de Valmy to replace them.

But in my plan I prefer to place Count de Valmy where I can recall him if I wish and not compel General Lefebvre-Desnouettes to make false marches, since it is probable that I shall decide this evening to march to Brussels with the Guard.

I have adopted as a general principle during this campaign to divide my army into two wings and a reserve.

Your wing will be composed of four divisions of the First Corps, four divisions of the Second Corps, two divisions of light cavalry and two divisions of the Count de Valmy's Corps.

This should give you 45,000 or 50,000 men.

Marshal Grouchy will have about the same force and he will command the right wing. The Guard will form the reserve and I will go from one wing to the other, according to circumstances.

The major-general (chief of staff) has given the most precise orders, so that there cannot be any difficulty about obedience to your orders when you are detached. Corps commanders will take their orders directly from me when I am present.

Under certain circumstances I may weaken one wing or the other to strengthen the reserve. You will feel the importance of taking Brussels.

A prompt movement will isolate the English Army of Mons, Ostend, etc.

I wish your dispositions to be such that on the first order your eight divisions may march rapidly and without obstacle on Brussels.

N.

Now we shall see what was done to carry out the plan outlined in the above letter:

Ney should have been in receipt of the Emperor's letter by nine o'clock A. M., as he was but five miles from Charleroi.

Quatre Bras was the natural place for the Duke's army to concentrate if he meditated a stroke against Napoleon, or designed to reinforce Blücher.

The Prince of Orange directed the troops at Nivelles to march to Quatre Bras.

Ney was dilatory in executing his orders. He ordered d'Erlon to halt at Frasnes. Kellermann was ordered to leave one division of cavalry at Frasnes and the other at Liberchies. (Frasnes is about two miles south of the battle-field of Quatre Bras, and Liberchies is two miles south of Frasnes.)

Quatre Bras is seven and a half miles north of Gosselies, where Ney made his headquarters the night of the 15th.

Ney attacked Quatre Bras with two divisions only, at about two P. M., instead of early in the morning with both corps.

When Ney began his attack the sole force of the enemy was Perponcher's Dutch Belgian division, about 6000 strong.

Ney was presently reinforced by the Third Division of the Second Corps and gained ground.

The Duke of Wellington reached the field from Bry (where he had been to confer with Blücher) at about half-past two and assumed the direction.

At three-thirty P. M. Picton arrived with his division, followed by the Duke of Brunswick's Corps, and Ney found himself somewhat outnumbered.

The Dutch Belgians retired, the Brunswickers were broken and the Duke of Brunswick was killed—the battle was maintained by the English and Hanoverians.

At five o'clock two brigades of Alten's division arrived, giving Wellington about 30,000 to Ney's 20,000.

Ney had not been reinforced by d'Erlon or Kellermann, although he had been expressly ordered to employ all in the movement on Quatre Bras. In fact, the Emperor's letter was as completely disregarded as though it had never been written. For that matter neither did Napoleon pay any attention to the excellent plan that he outlined in his letter to Ney.

As the First Corps was on the way to Quatre Bras a staff-officer from Napoleon met the leading division—Durutte's—and ordered it to Ligny.

D'Erlon had ridden on ahead. When he learned what had happened he galloped after his troops. When near St. Amand an order came from Ney directing the immediate return of the corps. Whereupon it marched back to Frasnes, arriving about nine o'clock P. M., without participating in either battle.

If Ney had used his 43,000 men vigorously early in the morning of the 16th, Wellington would have been unable to assemble at Quatre Bras, and it ought to have been nearly impossible for him to concentrate at all.

The waste of time and the neglect of the golden opportunities of the 15th and 16th were bad enough, but worse is to follow.

Activity on the part of Napoleon on the early morning of the 17th would have repaired the faults committed by himself and Ney on the previous days. Ney had fallen back on Frasnes after the battle of the 16th. On the morning of the 17th his strength and that of the Allied Army was equal. Ney might have renewed the attack.

Napoleon had the Sixth Corps (Lobau's) with which to reinforce Ney. This corps had been held in reserve the previous day; d'Erlon corps had not been engaged, and part of the cavalry was also fresh.

Napoleon first knew of the battle at Quatre Bras when General Flahault returned on the 17th at eight o'clock A.M. General Flahault also brought word to Napoleon that Ney had received no news of the Battle of Ligny. Thereupon Soult wrote a despatch to Ney informing him that the Prussians had been put to rout, and that Pajol was pursuing on the roads to Namur and Liege; the despatch also said: "If the

corps of d'Erlon and Reille had been together not an Englishman of the troops that attacked you would have escaped.

"If the Count d'Erlon had executed the movement upon St. Amand which the Emperor ordered, the Prussian Army would have been totally destroyed, and we should have taken perhaps 30,000 prisoners.

"The Emperor desires that your seven divisions of infantry and your cavalry shall be well organized, and that together they shall not occupy more than one league of ground, so that you may have them in hand."

The accounts of d'Erlon's movements, and what was expected of him on the 16th are conflicting. Lieutenant-Colonel Baudus, who was on the staff of Marshal Soult, says: "Napoleon called me" (when the battle of Ligny was at its height) "and said, 'I have sent an order to the Comte d'Erlon to direct his whole corps in the rear of the right of the Prussian Army. Go, and carry to Marshal Ney a duplicate of this order. You will tell him that whatever may be the situation in which he finds himself it is absolutely necessary that this should be executed; that I do not attach any great importance to what is passing to-day in his wing; the important is here, because I wish to finish with the Prussian Army. As for him, he must, if he cannot do better, confine himself to keeping the English Army in check.'" This does not coincide with Soult's despatch to Ney on the morning of the 17th reproaching him for allowing the English to escape.

Napoleon must have supposed that d'Erlon would be with Ney at five p. m.

Ney said he never received this order; that he learned the corps had gone off by sending to Frasnes for it, and finding it gone.

Then, again, if Napoleon had sent for d'Erlon's corps and was expecting it, why should he have delayed his assault on the Prussians, on the unexpected appearance of troops near St. Amand?

Everyone taking part in this Belgian campaign who could wield a pen wrote a memoir. These memoirs generally rank with the historical novel, and they have given the historians a deal of trouble to sift and verify—to sift, in search of a grain of truth that may be hidden in a bushel of chaff.

The weather on the morning of the 17th was fine; there was no reason why an attack by all the available force should not be

made as quickly as possible on Wellington's 45,000 at Quatre Bras.

Napoleon had 105,000 men. With these had he marched at daybreak—the sun rises in Belgium at four o'clock at this time of the year—Wellington to a certainty would have been overwhelmed.

The Emperor could have been at Quatre Bras by seven o'clock. The Duke did not withdraw till ten o'clock, covering the withdrawal by cavalry and skirmishers, and was beyond Genappe before his retreat was discovered.

Pajol had been sent to follow the Prussians toward Namur. Berton's brigade of Exelman's corps was also sent out in support of Pajol. Berton sent back a report that he had been led by statements of the inhabitants to proceed to Gembloux, where he had seen at nine A. M. a Prussian corps of 20,000 men (Thielemans's).

That no move of importance was contemplated appears from this sentence in Soult's note to Ney: "To-day will be needed to terminate this operation, to supply ammunition, bring in stragglers and to call in detachments. Give your orders accordingly and see that all the wounded are transported to the rear."

Everything tends to show that utmost confidence reigned at Napoleon's headquarters: he was quite indifferent to what his enemies were doing; he would look after them again when he got ready.

Jomini remarks: "Undoubtedly the Emperor had powerful motives for resigning himself to such inactivity; but these motives have never reached us."

Napoleon knew he had not won an overwhelming victory over Blücher. Still he remained on the field of battle, riding over it, and talking politics with his generals.

The Emperor broke camp about noon and marched on Quatre Bras, first detaching Grouchy with 33,000 men to follow the Prussians.

His energy that afternoon appeared to have returned to him—his impatience was such that he left his carriage for the saddle before reaching Quatre Bras.

He gave Ney a "piece of his mind" when he found that the English had escaped.

Regardless of the rain that drenched him to the skin he pursued with the van to the battle-field of the next day, where

he found the Allied Army firmly established and prepared to give battle.

Vandamme left Ligny to follow the Prussians at two P. M. Gérard followed an hour later. On account of the rain, which began to fall about three P. M., Grouchy went no farther than Gembloux that night (six miles).

The retreat of the Prussians on Wavre was successfully accomplished and it had escaped the knowledge of the French. Blücher arrived at Wavre at noon. He was somewhat disturbed about his ammunition from Liege, but that arrived safely at five o'clock P. M.

On the night of June 17th Blücher had 90,000 men at Wavre, Napoleon had 72,000 at Mont St. Jean and Wellington was confronting him with 68,000.

Gneisenau, Blücher's chief of staff, was not eager to join Wellington. He had taken a dislike to him and distrusted him, as is abundantly shown by his correspondence with Baron Muffling. He tried to persuade Blücher that Wellington would leave him in the lurch. Blücher, however, was anxious to join Wellington with his entire army, not with the two corps only that the Duke had asked for.

The conclusion is irresistibly forced on one, in following the correspondence of Gneisenau and the movements of the Prussians, that Gneisenau expected Wellington to get the worst of the impending battle, and that he (Gneisenau) lying behind the woods of Frischermont could debouch and fall on Napoleon's flank afterward and win a victory after the Duke's defeat. Napoleon had lost 20,000 men when Gneisenau finally crawled on the field of battle at five o'clock in the afternoon with his 90,000 men.

At this moment the French could not muster much more than 50,000; Wellington somewhat less.

It must be borne in mind that Gneisenau was a very influential person; he was supposed to be an able general, and had been assigned to the impetuous "Marshal Vörwärts" as adviser and balance wheel. Prince Blücher was in his seventy-third year, and had been badly bruised and shaken on the evening of the 16th, when his horse was killed under him during a charge of cavalry led by the old huzzar himself.

Nothing could be done without the approval of Gneisenau.

Col. Sir Henry Hardinge (Ropes calls him general, Wellington speaks of him as colonel) the military attaché at Prussian



headquarters "records that Blücher burst into his room (at Mellery, night of June 16th and 17th) triumphantly announcing, "Gneisenau has given way. We are to march to join Wellington." Not very rapidly, however. Gneisenau threw many obstacles and impediments in the way before falling on Napoleon's right flank on the 18th.

Although Napoleon knew that Blücher had gone to Wavre, and that Grouchy with his 33,000 men could effect nothing against him, he failed to send definite orders for Grouchy to join him on the Brussels road.

He assumed that this untried marshal would do the right thing at the right time, notwithstanding the recent example of mismanagement by the celebrated Ney.

Ropes quotes Marbot's "testimony" to the fact that Napoleon expected Grouchy at the bridge at Moustier (over the Dyle River).

Marbot never gave any testimony. He wrote his memoirs for the perusal of his children (?), and like other memoir writers, and tellers of war stories, the relation is somewhat arranged to suit the exigencies at the time of telling.

One cannot help suspecting Marbot of being the prototype of Charley O'Malley the Irish dragoon.

On the 18th, instead of attacking the enemy at nine o'clock in the morning, the Emperor held a review.

The army was formed in three lines, the bands played, the men shouted "*Vive l'empereur*" and then stacked arms.

Blücher was at Wavre and presumably on his way to join Wellington. It was imperative that the Duke should be attacked and beaten before the junction could be effected. The rain ceased at eight A. M., or before. The attack was not made until after eleven o'clock.

It is alleged this delay was on account of the ground being too wet for the artillery.

Rose relates that after breakfast, (at the Caillou house) Soult wished the Emperor to recall some of Grouchy's force. Napoleon replied: "Because you have been beaten by Wellington you think him a great general. I tell you that Wellington is a bad general, the English are bad troops, and this will be the affair of a *déjeuner*." Reille afterward came in, and finding how confident the Emperor was, on going out mentioned it to d'Erlon, who advised his colleague to return

and caution him: "What is the use," rejoined Reille, "he would not listen to us."

The first shots were fired on the 18th at eleven-thirty A. M. to cover an assault on the Château Hougomont by Jerome's division of Reille's corps. Had the attack been made with a few guns, the walls and doors would have been demolished and open to an attack by infantry. Reille's corps did little else that day than expend its energies futilely on Hougomont.

After pounding the enemy's center for an hour and a half with seventy-eight guns at less than 600 yards, d'Erlon was ordered forward at one-thirty P. M.

The attack was made in four columns, in column of battalions formed in three ranks five paces between battalions.

This formation was held by contemporary critics to be extraordinary, unusual and ill suited for the work to be done.

A column generally in use at that day consisted of a battalion in line in the center flanked by battalions in column of divisions (two companies?), which could promptly form square—a frequent formation in the days of flintlocks and cavalry charges.

"Why Ney and d'Erlon should have departed from the usual practice on this occasion, no one knows". (Charras)

When d'Erlon charged he received the fire from the brigades of Kempt and Pack at short range. Owing to the formation of the columns, only the leading battalions could return the fire. Ponsonby charged with his heavy cavalry throwing the French into confusion.

The attack on La Haye Sainte was like the attack on Hougomont; with an abundance of heavy guns none were used to batter the doors and walls.

More than 2000 men were lost in getting possession of La Haye Sainte.

By this time (four o'clock) the advance of Bülow's corps could be seen at St. Lambert and occupied the attention of the Emperor. The battle against Wellington was left to Marshal Ney. Ney determined to carry the English center with cavalry. He was originally an officer of cavalry, and perhaps overrated the capability of this arm.

The cavalry did not break an allied square, but the allied troops were obliged to remain in squares, and presented an easy mark to the French skirmishers and to the artillery when the

cavalry retired down the slope to reform, which was done several times between four and six o'clock.

The relative strength of Napoleon and Wellington was the same.

If Napoleon had fought in the morning and had recalled Grouchy, he had a good chance to win the battle.

The arrival of the Prussians soon ended the combat, and the word "Waterloo" has ever since been the synonym for total defeat.

General Gourgaud was Napoleon's amanuensis when writing the "Memoirs." He told Basil Jackson at St. Helena that he could not finish the battle of Waterloo "as Napoleon could never decide on the best way of ending that great battle; that he (Gourgaud), had suggested no less than six different ways, but none were satisfactory."

Gourgaud's journal shows that Napoleon blamed in turn Ney, Grouchy, Vandamme, and Soult; but he ends, "It was a fatality, for in spite of all, I should have won that battle."

#### TROOPS ENGAGED AT WATERLOO.\*

	Infantry	Cavalry	Artillery	Total	Guns	Lost
English.....	15,181	+	5,843	+ 2,967 = 23,991	78	11,678
German Legion	3,304	+	1,991	+ 526 = 5,821	18	3,178
Hanover.....	10,258	+	467	+ 465 = 11,190	12	
Brunswick.....	4,586	+	866	+ 510 = 5,962	16	687
Nassau.....	2,880	+	0	= 2,880	0	643
Belgians.....	13,402	+	3,205	+ 1,117 = 17,724	32	0
	49,611	+	12,372	+ 5,585 = 67,568	154	16,186
Prussians.....			About,	90,000	..	6,999
						23,185
French.....	48,950	+	15,765	+ 7,232 = 71,947	246	30,000

\*From Greig's *Life of the Duke of Wellington*.

## HOW TO MAKE RIFLE PRACTICE A SUCCESS.

BY CAPTAIN HERSCHEL TUPES, FIRST INFANTRY.



THE physical qualifications that a man must have to be able to enter the service are a sufficient guarantee that, if not already a good shot, he will become one if given the opportunity for practice and the proper kind of instruction. Any impression that a good shot is born, not made, is wrong. Every soldier should be encouraged to believe that he has the making of a good shot in him, but at the same time he must be given to understand that he cannot expect to become one without exercising patience and performing a greater or less amount of preliminary work.

This preliminary work includes learning the correct principles of aiming and sighting, the position for firing, method of breathing, the use of gun sling and the method of pulling trigger; also gallery practice and firing at miniature targets with service charges.

The peep-sight should be taught the recruit first and the use of the notch or open sight explained to him afterward. Every recruit should be required to use the peep-sight habitually, unless his vision proves so defective as to prevent it, and the same applies to all old soldiers who have never qualified higher than marksman while using the open sight. Any man who has learned to shoot well with the open sight should not be interfered with; at the same time he should be prevented from attempting to influence recruits to adopt and use it. The length of time it takes to learn to do accurate shooting with the open sight is longer than the average soldier stays in the service. Use the peep-sight habitually in the position and aiming drills, gallery practice and the practice at miniature targets with service charges.

The prone position for firing should first be taught the recruit, then the kneeling and sitting positions, and lastly the standing, and the same order should be used in gallery practice. The prone position is the easiest assumed; in it the shot gets good results at once and therefore quickly acquires confidence in his ability to shoot, which is of the greatest

importance for the beginner. One must remember that not only do the drill regulations prescribe the prone position as the one to be habitually used in combat, but in actual range practice over two-thirds of the shots fired in the marksman's and sharpshooter's courses and in the expert test are fired from the prone position. The soldier should be taught early to regard it as the habitual firing position.

We then teach him the kneeling and sitting positions as being the next most difficult to learn.

The standing position is taught last as it is the most difficult one of all and is also the least important. But one-fifth of all the shots in the marksman's course are fired off-hand, none in the sharpshooter's course, and less than one-sixth in the expert test.

In all the firing positions the shot should be taught to hold his breath, while in the act of aiming, with but little or no air in his lungs than what he inhales in ordinary breathing. The reason for holding the breath is apparent. The lungs should not be fully expanded as the muscles of the chest are thereby rendered rigid and the pulsation of the arteries cause an unsteadiness of the piece while holding it tightly pressed against the shoulder.

The proper use of the gun sling should be taught the recruit in the preliminary instruction period.

The correct method of pulling trigger is thoroughly explained in the translation published in the *JOURNAL OF THE MILITARY SERVICE INSTITUTION* for November, 1905, entitled "The Individual Instruction of the Shot and the Education of the Nervous System," and should be followed from the beginning of the trigger-pull exercise.

Try the trigger pull of every rifle in the company previous to the preliminary instruction period. Those which have an uneven or "ragged" pull should be remedied by a competent artificer or gunsmith.

Adopt arbitrary qualifying scores for both slow and rapid fire in gallery practice and give those who fail to qualify additional position and aiming drills until they can qualify.

Following gallery practice, all those men who have never had range practice should be required to fire a few rounds with service charges at miniature targets, following strictly the method laid down in the article mentioned above, firing at

target X, first in the prone position and then in the kneeling and sitting positions before firing off hand at that target.

In firing at miniature targets any old, tarnished or loose ammunition should be used.

In spite of all precautions to prevent flinching there will probably be a few men in every company who will continue to flinch at this stage. Patience and methodical instruction will be necessary to overcome it. Some of the worst cases of flinching are found among athletes, but one rarely sees a gymnast flinch. Gymnastic training naturally develops a better control of the nervous system while an athletic training does not necessarily do so. It is found that a man who is good in gymnasium work soon develops into a good shot also. Systematic gymnastic training is a most valuable preliminary to rifle practice.

The preliminary work should be completed just before going upon the range, and if it has been properly conducted, every man should have learned the proper firing positions, the proper use of the gun sling, how to aim and to pull trigger correctly and will have overcome any tendency to flinch. During the company range practice is not the time to attempt to teach any of these rudiments of shooting.

In general, it should be the object of officers conducting rifle practice to surround the new shot with as many conditions favorable to accurate shooting as possible, and at the same time to eliminate the unfavorable features that may tend to lower his scores and discourage him. If a man qualifies as marksman or better in his second season's practice while shooting under favorable conditions he will probably maintain his grade the third season even if he has to fire under unfavorable conditions; but, if no particular attempt is ever made to promote his shooting, the odds are against his being able to qualify as marksman in a half dozen practice seasons. Every soldier should learn to do accurate shooting under all kinds of unfavorable conditions involving wind, rain and darkness, but before all this can be expected of him he must first be able to shoot accurately with these things eliminated.

Company commanders should have the co-operation of the commanding officer in these efforts. The range practice of a company, to be successful, should be pursued to its completion without any interruption by other garrison duties. Under these conditions three weeks will ordinarily be ample time to

complete the practice of a company. The men on extra and special duty should be temporarily relieved during the practice period of their companies; and commanding officers should also withdraw companies from the rosters for guard and fatigue, which are duties of the first class, during the period to which they are assigned or detailed as entire units for target practice, which is a duty of the second class. The last week or ten days of the season should be set aside exclusively for the practice of those men who were unable to practice with their own organizations. Post commanders should so assign the practice periods that one organization will not have any material advantage in time over another. The time allotted an organization should be proportional to the strength present available for practice. Only as thus regulated will every company have the opportunity to get its best results.

Sobriety is a very important factor in promoting the success of individual practice.

Ammunition should be apportioned so that the new shot will fire from a particular box throughout the practice. If any men have to change ammunition they should be the experienced shots.

Have the artificer make benches, from any material available, to accommodate all the men who may be on the range at any one time. They are easily carried from one firing point to another and the men will not have to sit or lie on the ground or stand about while waiting their turn to shoot.

Do not detail non-commissioned officers who are good shots as markers or scorers, but keep them at the firing points as coaches.

Require every man to keep an individual record of his shooting throughout his practice. This serves primarily to keep his mind on his shooting and he more readily learns how to vary the elevations and the windage of the rear sight at every range according to the various changes in the light, wind and atmospheric conditions. He finds the zero of the wind gauge by noting where it has to be placed when the piece is fired by himself, in order to make a bull's-eye or a close line shot while holding at six o'clock and firing when there is no wind.

At the end of instruction practice, rapid fire, marksman's course, take the data thus obtained, as far as pertains to the zero of the windage and to the elevations, and concentrate it for every rifle in convenient form for individual reference, esti-



inating the corresponding elevations for each intermediate range in skirmishing. It will be found that the elevations for the several ranges will usually vary more or less from the corresponding graduations on the sight leaf. In order that every man might be assisted in familiarizing himself with the proper elevations some officers have placed the necessary data on an ordinary shipping tag and then tied this tag to the gun-sling swivel where the man could readily see it in firing, and they obtained good results. Without considering the propriety of doing this in record practice in the marksman's and sharpshooter's courses, it must be remembered that no man can have such a thing attached to his rifle while taking the expert test.

As a preliminary for skirmishing it will be well to run the inexperienced shots down the range a few times simulating a regular skirmish run in everything except the actual leadings and firings. The ordinary shot can get best results in skirmishing by firing the first ten shots at the kneeling figure and the last ten at the prone.

In instruction practice when it is found that a man has made poor runs and is confused and uncertain of the cause, it will be well, as additional instruction practice only, to have him fire at the silhouettes arranged as follows:

Paste two B targets on their frames with the face of the target against the cloth. On one of these paste the kneeling silhouette with the lower edge flush with and in the middle of the lower edge of the target; place the prone silhouette similarly on the other target. Place a non-commissioned officer and two privates in the pit to mark and manipulate these targets similarly as in slow and rapid fire and instruct them to promptly mark a hit on the silhouette with the white disk, a miss within the frame with a red disk, or the proper flag for a miss off the target, immediately after each shot is fired at the first four ranges, and in firings at the 200 and 300 yard ranges to mark the shots in a similar manner and in the order in which the hits were made, after the fast shot is fired. Target to be lowered and pasted immediately after the last shot is signaled at each range and the desired target then properly exposed for the firing at the next range. There is nothing in this method of marking shots or of shifting targets to prevent the run being conducted in the prescribed way and the skirmisher recognizes the cause of his errors at once. Limited to instruction practice,

as above mentioned, the Chief of Staff has decided that this method is allowable under the Small Arms Firing Regulations, 1904.

Upon completing the prescribed instruction practice, marksman's course, go over the scoring sheets for each class of fire and note the men who failed to average marksman's scores in them at the various ranges. "Marksman's scores" are the several minimum scores aggregating 300, any of which an inexperienced shot can make and still have reasonable expectations of qualifying as marksman and are as follows: at 200 yards, slow fire or rapid fire, 17; at 300 yards, slow or rapid fire, 18; at 500 yards, slow fire, 19; at 600 yards, slow fire, 16; a skirmish run, 45. Wherever a man's average falls below these scores it indicates the need of additional instruction practice at that point or class of fire, and the apportionment of extra ammunition for additional instruction practice should be made accordingly, the attempt being, in this course, to make every man a marksman. The statement which is often heard on the range that "15 is marksman's score" is an erroneous and misleading one for it causes the new and unthinking shot to be satisfied with scores which will leave him with more than he can make up for in skirmish firing.

In record practice the officer conducting a company's practice should devote himself to personally seeing that the requirements of the regulations regarding firing, marking, signaling and scoring are strictly complied with, and should he be the only officer with his company he will have but little time for coaching. In fact, there will be but slight need for coaching at this stage if all the preliminary work has been thorough. He should attach the greatest importance to being able to state that he *knows* all of the requirements of the regulations were complied with for every individual.

When a large proportion of the company qualify as marksmen it will probably be found that the number of C targets on hand are not sufficient to properly accommodate all the men firing in the sharpshooter's course. The deficiency can be remedied by fastening C target frames to the front carriages of B sliding targets and lashing counterweights to the rear carriages so that they can be raised and lowered freely. The C target frames are prepared by fastening two pieces of scantling vertically against the back of the target and far enough

apart so that the lower ends will, when properly dressed down, fit into the sockets of the front carriage.

After completing the prescribed instruction practice in the sharpshooter's course, additional instruction practice should be given to every man who made scores aggregating less than 100; average scores of less than 17 at 800 yards, 16 at 1000 yards and 17 at 500 yards determining the particular ranges at which additional practice should be given.

The men not qualifying as marksmen, but who are to participate in collective fire, should be required to fire a sufficient number of rounds at 800 and 1000 yards during instruction practice, sharpshooter's course, to determine the proper elevation of their rear sights at these ranges. Unless this is done, as high a collective figure of merit as is possible cannot be made by the organization.

All the data regarding elevations and windage which are obtained for each rifle during the range practice should be kept for reference during the next season's practice.

A range telephone system in good working order is essential to satisfactory target-practice.

Although not required to be done by the regulations, an officer should, if possible, be in the pit during the firings in all record practice and there supervise the work of the target details. This should ordinarily insure the proper enforcement of the pit regulations; but an additional precaution affording an opportunity for this officer to positively identify shots, following inquiry from the firing point or for other purpose, would consist in requiring the non-commissioned officer in charge of the marking at each target to personally number every shot hole with a colored pencil—consecutively in slow fire, and with the consecutive number of its score in rapid fire—after the shot hole is pasted. The best way to prevent improper marking is to not allow the opportunity for it.

#### HONESTY.

At the beginning of range practice assemble all the non-commissioned officers and explain to them the method of marking, signaling and scoring, etc. On the same occasion they should be warned that nothing of a questionable nature must be allowed to enter the practice; that their integrity will probably be placed on trial more than once and that it must not fail them. Show them also that honesty is best from the mere

standpoint of expediency, for dishonest marking will probably confuse the man who is firing and is likely to bewilder any man who is able to "call his shot" and result in finally impairing his score. If one or two men make high grades by being scored up there will be a dozen others who will soon know of it and nothing kills their incentive to obtain a badge or a pin themselves so quickly as the knowledge that other men are wearing them who do not deserve them.

But enlisted men will not always maintain the proper standard in this respect if the officers are indifferent, lax or careless. They are prone to take advantage of a situation left open by the officer who "knows nothing he does not see."

Scorers should deliver the scoring sheets to the company commander, who should keep them in his possession until entered on the individual records.

What is said of individual integrity applies to organizations also. Nothing kills wholesome competition quicker than the certain knowledge that some organizations are practicing petty evasions of the spirit, if not the letter, of the regulations.

It is primarily the duty of commanding officers to see that the spirit of the regulations is carried out. In record-skirmish practice, for example, company commanders should indicate opposite the name of every man in a run his aggregate score up to that run and the commanding officer should scrutinize these lists before the run is made, or as soon afterward as possible. He should require a special explanation for every case where two or more men are grouped together whose aggregate scores differ materially previous to that run, and should the comparative results of the run for these men be incompatible with their known abilities as range shots there should be no hesitancy, when they are so grouped, in throwing out the scores.

If every individual were properly encouraged to put forth his best efforts in preliminary work as well as in range firing, if company officers would, for two months each year, take half the interest in the details of target practice that they take in close order drill, and if they had the proper co-operation of their commanding officers, there is no reason why the general figure of merit of every company in the service having access to a good range should not be raised to 100 or better; and the soldier would have four chances in five of qualifying above first class before the expiration of his first enlistment.

While it is highly desirable that a general interest in shooting be re-awakened throughout the service, precautions should be taken against it being carried too far. A mistake was made in this matter several years ago. There was practically an unlimited allowance of ammunition for target-practice. Shooting became a leading topic in the service. An unwholesome spirit of competition arose, expenditures of ammunition became enormous and local scandals developed. Then the ammunition allowance was cut to the barest minimum and the inevitable reaction set in from which it has taken over a dozen years to recover.



## THE ADMINISTRATION OF A TROOP OF CAVALRY IN THE NATIONAL GUARD.\*

BY CAPTAIN HERBERT BARRY, SQUADRON A,  
NATIONAL GUARD, S. N. Y.



IN responding to the invitation of the presiding officer to address this meeting on the subject of the Administration of a Troop of Cavalry of the National Guard, I assume that what is desired is a reference to experience rather than an exposition of theories; and in this view will endeavor to describe how the affairs of the three troops of Squadron A, and particularly Troop Three, of which I have the honor of being the commanding officer, are administered.

Kipling, whose theme, like that of the great Latin poet, is arms and the men who bear them, has pithily expressed the fundamental qualification of individual cavalymen, in that stern arraignment of his countrymen, in which he says:

Ye fawn on the younger nations  
For the men who can ride and shoot.

It is of first importance to mold the raw material into men who can ride and shoot, but for the successful handling of units, both as recruits and as soldiers, organization is essential. An army cannot be maneuvered, transported or fed except as a combination of organizations in co-ordination and co-operation.

Similarly a troop cannot operate as a mere aggregation of individuals, but these must be organized, and the organization carefully administered, or the result is a mob and hopeless inefficiency.

The conditions under which the citizen soldiery of the National Guard perform their duties involve serious limitations upon the training which is possible in the matters of administration; but the effort will here be made to describe briefly what is done under these conditions and limitations.

In the first place, it may be said that the responsibilities of a cavalry commander are greater than those of an in-

\*Paper read at the annual meeting of the National Guard Association of New York.

fantry officer in like position; the infantry officer has men, uniforms, equipments and rifles in his charge; the cavalry officer has all of these and likewise horses, horse equipments and additional arms. Furthermore the cavalryman must be drilled and trained in the same matters as the infantryman, but his training also includes the care and management of his horse and mounted drill.

The position in which Squadron A stands is perhaps different from that of any other organization. Originally organized as a single troop, to which the members were admitted only after election by the body, it has grown into a squadron of three troops, but candidates for membership are elected into the squadron, not into a troop. Upon enlistment the recruit is assigned to a troop and thereafter becomes identified with that organization.

Each member contributes as dues to the squadron not the troop) fifty dollars annually, and the squadron provides him with his mount upon all drills and parades. If he supplies his own horse he is credited at a fixed rate for each drill and parade on which it is ridden.

In the matter of administration the commanding officer of the squadron has practically plenary powers. He consults with the line and staff-officers of the squadron at monthly meetings, but his word is final upon substantially all matters pertaining to administration and to the disbursement of squadron funds. The armory and its employees are under his direction, and as an incident to this, all arms, equipments and uniforms are cared for by paid employees.

It results that the troop commander, except when ordered out for field-service, has little to do in reference to property issued to him, and for which he is responsible. The burden of this responsibility is therefore felt more severely when the troop is ordered out for service in the field, at which time what was before theoretical becomes a practical responsibility.

Questions of commissariat and of transportation, including the providing of horses, are cared for by the squadron commander, and except as to the subject first mentioned, rarely devolve upon the troop commanders.

With all of these limitations, however, the commander of a troop of cavalry in Squadron A may find ample opportunity to



occupy himself in the development of his troop and the maintenance of its efficiency.

The drill season extends from October 1st to April 30th, during which period his troop drills regularly once each week. In addition to this there are special parades and reviews in which all participate, and still further duties fall upon the officers and non-commissioned officers. After the drill season the rifle range at Creedmoor opens, and during six months there is opportunity for very necessary and very beneficial work to be done.

The recruits of all the troops after election, and irrespective of enlistment, are placed in a recruit squad—the term “Awkward Squad” is not used; nor, it may be added, is the term “Recruiting Committee” used, the more appropriate term of “Committee on Admissions” having supplanted it. In this recruit squad the men are drilled under the supervision of an officer and of several non-commissioned officers detailed from the several troops, until the recruit is pronounced by the officer in charge as sufficiently proficient to take part in the drill of the troop to which he has been assigned. The troop commander, therefore, has no occasion to make his drill a kindergarten, nor does he do so. During the first two months of the drill season half of the time on each drill night is devoted to dismounted drill, including the manual of arms and extended order. The remainder of the time during this period is devoted to mounted drill without saddles and with watering bridle only. The drill is from 8.30 to 10.30 P. M., so that at least an hour's mounted drill is had. After the second month, the entire two hours is given to mounted drill, saddles and curb bridles still being dispensed with; and during these three months the troopers are required, not merely to ride, but to go through mounted exercises that demand agility, fearlessness and horsemanship. If any trooper finds himself in any way lacking in these qualifications, he must acquire them or he must find more congenial pursuits. In the drill it is assumed that the men are past the elementary stage and that it is not necessary to explain to any man an order when it is given; it is also assumed that a man is able to take care of himself and his horse and does not need assistance in either respect. If his horse should become unruly, or if his saddle should slip, he must not expect help from another trooper.

In the recruit squad it is considered desirable that the as-

pirant for martial glory shall fall from his horse early and often. Until he has fallen, he dreads the operation as fraught with danger to life and limb. Tan bark is soft and no process will eliminate his erroneous impression so speedily and effectually as the practical and personal demonstration of the effect of actual contact.

Any man of good physique can ordinarily be made a fair rider. This does not mean that he can be made an accomplished horseman, for good "hands" are rarely found in the case of a man who begins his riding after reaching maturity, but he can be given a firm seat and made a good, practical cavalryman.

The reins are mentioned in the drill book as "aids in horsemanship." This does *not* mean support to prevent the rider falling off. Better by far fall off than thus stay on.

To insure the troopers riding with a firm seat and without any aid from the reins as a source of support, they are required, among other things, to ride with their arms folded, the horse being led by another man, and also to jump a hurdle in this position. The latter exercise is one which we practice constantly, and the more so from the instructive results that followed the experiment of its introduction. On that occasion the members of the troop had been jumping the hurdle and performing other exercises with apparent ease and confidence, but it seemed to the writer that the horses were not given their heads at the jump, and so the men were directed to go over the hurdle in column of troopers, dropping the reins at the hurdle. The result was that nearly half of the men likewise dropped, confirming the suspicion as to the previous improper use of the reins. Perhaps in no other way could the individual men have been so cogently instructed upon this point, and the point of the instruction so promptly and forcibly impressed. As a result, each man set about correcting his shortcomings, and in the next drill little more than 10 per cent. of the men parted company with their mounts at the jump. A week later the whole command passed over safely. Since that time, although it is a regular feature of the drill, it is a rare occasion that a man loses his seat, even though the horses at times may plunge or kick after passing the hurdle. Another exercise which tests the firmness of the trooper's seat and his command of the horse consists in executing a figure eight at the gallop. In this each trooper in turn is required to ride out separately at the gallop,

and to describe a figure eight, thus making the horse change from left foot to right, and *vice versa*, within a short space. To accomplish this purpose the trooper must be able not only to use the reins and legs as aids in the manner prescribed by the drill book, but he must be able to throw his weight from side to side, as additional aids in guiding horse, and without saddle and stirrups this requires a firm and secure seat. I think it may be said that a trooper who can satisfactorily put a horse through this exercise and also can jump the hurdle with the arms folded is sufficiently proficient as a horseman for any ordinary drill.

Of course these exercises are only examples. For instance, our men must be able, and are required to dismount, and vault on a horse as it jumps the hurdle; they must be able to ride over the hurdle facing the rear, and they must be able to perform a variety of other athletic exercises.

The constant practice of these exercises, in addition to the ordinary movements of troop drill during the first three months of the drill season, have the practical effect of giving the trooper a firm seat, developing his "hands," and making him a good, practical rider for cavalry purposes. Following this, the drill with equipment is taken up, of which but little need be said. The aim is, of course, to obtain the highest degree of accuracy and precision in all movements of the drill, with and without arms.

During the drill season the men are also required to practice carbine and pistol shooting in the armory range, which is, however, quite inadequate for the purpose, having been constructed for one troop, and affording, therefore, only one-third of the proper facilities. Nevertheless, much valuable instruction and practice is had there, and also with a sub-caliber gun, which has recently been installed. The shooting is done by squads under the charge of their respective corporals, and also by individual effort on nights other than those on which the respective troops drill; by competition and prizes incentives are offered for special efforts, and good results have been obtained, which are more fully shown in the subsequent work at Creedmoor. Of course, schools for non-commissioned officers must also be conducted by the troop commander during the drill season, but space forbids further mention of these.

After the drill season the squadron goes to Creedmoor, and substantially all of the men qualify as marksmen on that day. This result was not accomplished in former years, but by per-

sistent effort the standard of efficiency has been steadily raised until the results that are now arrived at compare favorably with those of any organization. This is largely due to the persistent work that follows during the season of the supplementary practice, the efforts of one year bearing fruit in the results achieved in the year following.

Good-natured rivalry between the troops has prevailed, and to this is in part due the marked improvement that is shown year by year. As illustrating this improvement a comparison of the records for five years past shows the following:

The number of men in the Squadron qualifying as experts was—

In 1901 .....	4
" 1902 .....	20
" 1903 .....	41
" 1904 .....	53
" 1905 .....	82

Of these eighty-two, Troop Three, with a total membership of seventy-five, contributed thirty-five, being  $46\frac{2}{3}$  per cent. of its strength.

As further showing the improvement where interest is stimulated, and what persistent effort will do, it may be added that since the institution three years ago of a prize for the highest figure of merit for organizations attached to headquarters this prize has been taken by Troop Three of Squadron A with the following percentages:

1903 .....	61	10/100
1904 .....	63	80/100
1905 .....	66	99/100

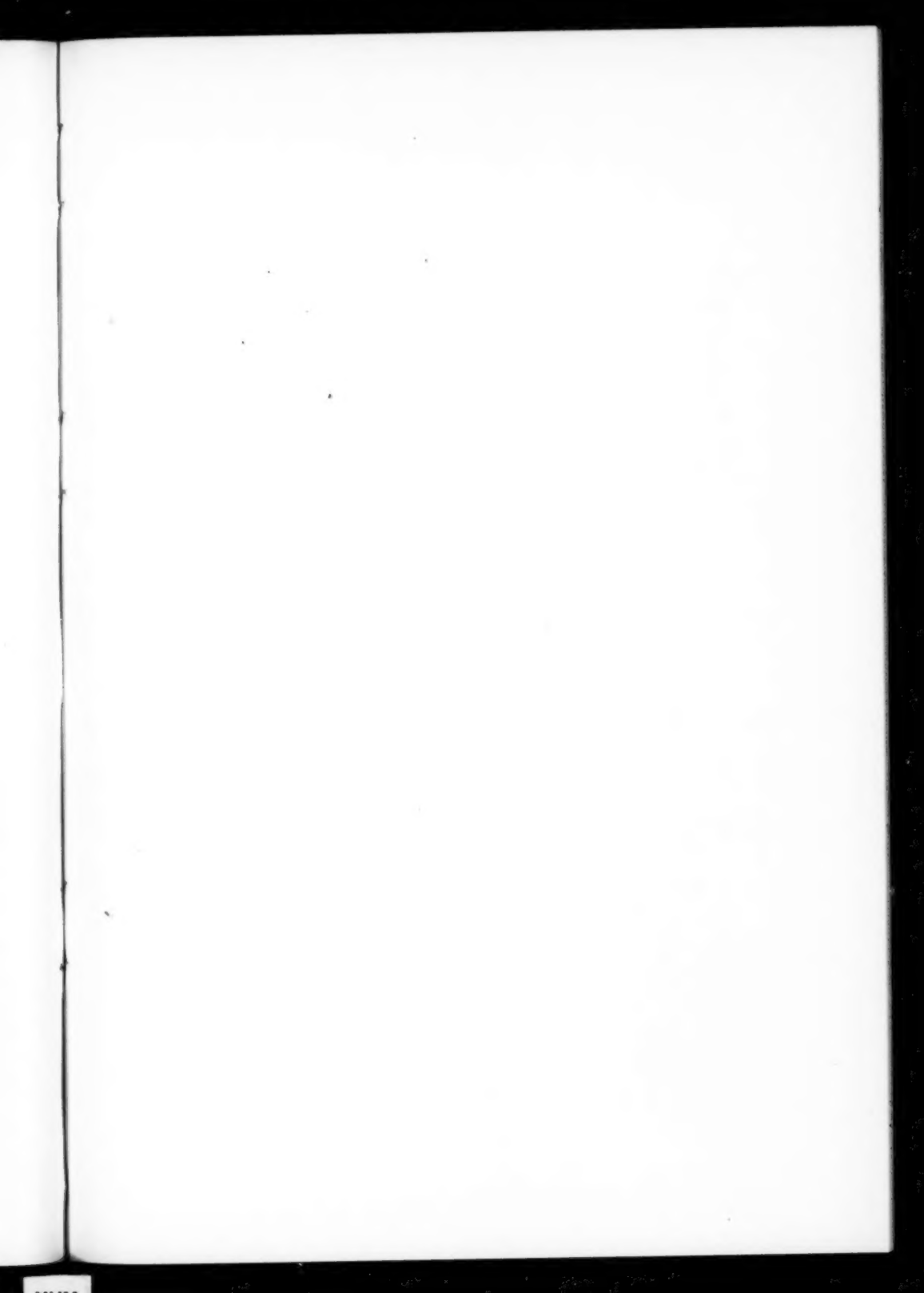
And now a word as to the stimulating of this interest. It is not due to auto-suggestion; it must be the subject of constant exhortation and encouragement, and in no capacity is subaltern officer or non-commissioned officer of greater aid to the troop commander. It has been the practice of the writer to assign a sergeant to the care of the shooting both in the armory and at Creedmoor. There is no provision or title for such an official, and so a duty sergeant is assigned. This sergeant keeps a roster of the troop and a record of all the scores made both in the armory and at Creedmoor during the entire year. He pursues any laggards; and to quote again from Kipling, "He works them, works them, works them till he feels them

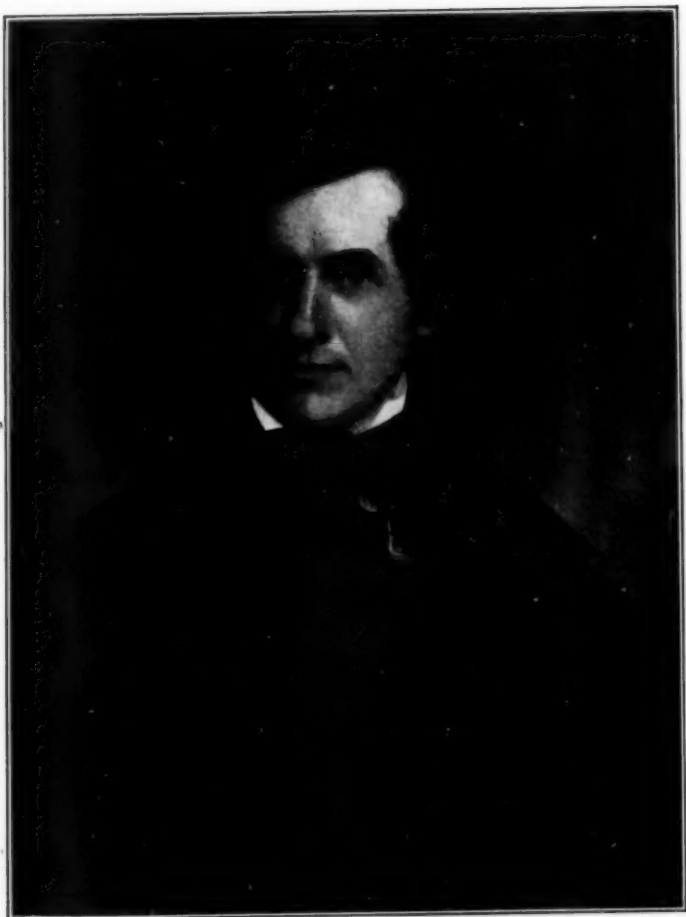
take the bit." For such a sergeant may a troop commander be devoutly grateful.

This fittingly introduces the subject of "the backbone of the army." It is, of course, possible for a captain to take an unorganized body of men and from them develop lieutenants, sergeants and corporals, as well as private troopers; our revered guide and exemplar, Major-General Roe, performed this feat, but undoubtedly the ideal condition of a troop, from the standpoint of its commanding officer, is to have all of the work done by his lieutenants and non-commissioned officers, leaving himself to bask in the glory of their triumphant achievements. The triumvirate of sergeants upon whom the troop commander leans is like a three-legged stool. If all are effective he can sit secure; if one fails him there is trouble sure and plenty.

Of the importance of the first sergeant, and the large share that he occupies in promoting the captain's peace of mind, nothing need be said. The quartermaster-sergeant, to whom the captain looks for the care of the property as to which he is responsible, is somewhat of a free lance so far as drill work is concerned, but if he fulfills his own special functions, the captain can well afford to give him and his assistants, the artificers, much leeway. When the troop leaves the armory upon field duty, the duties of the quartermaster-sergeant and his artificers as to the wagon, the forage and the horses demand competence and energy. The commissary-sergeant is a potential factor in the armory but a most active one in the field, and he has little opportunity for practical preparation; but the work done on marches and camp service has been most creditable.

Of course the other sergeants and corporals are most important factors in the efficiency of a troop. In fact, it is by the development of the spirit of responsibility on the part of the sergeants and corporals, and by holding the corporal accountable for the condition and performance of the men in his squad, that the best results have been achieved. The chevrons are a prize which is eagerly sought, and which, when gained, demands unremitting attention, effort and tact. The selection of non-commissioned officers and the keeping of them to a high standard is the finally determining factor in the efficiency of the command.





JOHN FARLEY,  
Lieutenant, First Artillery, U. S. A.



## LETTERS FROM EUROPE, 1828-9.

FROM THE UNPUBLISHED MEMOIRS OF THE LATE LIEUT. JOHN FARLEY, FIRST ARTILLERY, UNITED STATES ARMY.\*



HERE has, recently, come into the possession of an army officer†, letters of his father, formerly an officer of the United States Army, written from Europe in 1828-29, which had been hidden away in an old chest for more than three-quarters of a century.

He was a lieutenant at the time (a few years after graduating from West Point) and while on furlough was instructed by the War Department to observe while in Paris the best system for military maps and lithographic drawings, with a view of introducing the methods employed abroad into the bureaus of our military departments.

When in Paris Lieutenant Fessenden and himself were invited by General Lafayette to the general's château at "La Grange," where they were the recipients of the generous hospitality which Lafayette was so fond of showing to Americans, and more particularly to those in our military and naval services. From one of the letters it would appear that while in Paris this officer was requested to make the design for the vase presented to General Lafayette by the midshipmen of the frigate *Brandywine*, which conveyed the general to France in 1826, when returning from his last visit to the United States.

From the last descriptive paper, which is worn and yellowed by age, it is inferred that the letters from Europe were addressed to his young friend, John H. Latrobe, who had been a comrade of the young officer at West Point and a chum of his in college.

These young men are known to have had unusual talent with the brush and pencil; the one being a son of the archi-

\* *Military History*.—Cadet at the Military Academy, June 24, 1810, to July 1, 1823, when he was graduated and promoted in the army to Brevet Second Lieutenant, Second Artillery, July 1, 1823; Second Lieutenant, First Artillery, July 1, 1823. Served: on Topographical duty, Aug. 21, 1823, to May 21, 1828; on leave of absence in Europe, 1828-29; on Ordnance duty, May 1, to Aug. 6, 1829; on Engineer duty, Aug. 6, 1829, to Dec. 1, 1832; in garrison (First Lieutenant First Artillery, Aug. 1, 1832), at Charleston harbor, S. C., 1832-34, during South Carolina's threatened nullification,—and at Fort Monroe, Va., 1834-35; and in Florida, 1835. Resigned, Feb. 29, 1836. *Civil History*.—Assistant in the Geodetic Survey of the Atlantic Coast of the United States, April 1, 1837, to July 31, 1874. Died, July 31, 1874, at Narragansett Pier, R. I. Aged 71. At his death he was the oldest assistant on the work and his chief announced "Through all climates of our extended coast, without remitting for private wants, Mr. Farley was ever ready to perform carefully and faithfully, any duty to which he might be called, and the archives of the Survey have been enriched by his labor and his skill."<sup>2</sup>

† Brig.-Gen. J. F. FARLEY, U. S. A. (retired).

tect of the Capitol building in Washington City, and the other an instructor of junior cadets in drawing at the Military Academy while he himself was still a cadet, and the furlough granted him in 1828, for one year, was with the view of his qualifying as a candidate for the Professorship in the Department of Drawing at the Academy. These facts are mentioned for the reason for that one so young, and it must be said, inexperienced, his criticism of art when in Europe may be judged as decidedly bold, and if we consider the period of his writing, well in accord with present-day opinions.

When starting on the packet ship *Shenandoah* off Cape Henry, Va., the first letter to his friend is dated July 1, 1828, and here he says:

## I.

ON BOARD THE *Shenandoah*, OFF CAPE HENRY, VA.

July 1, 1828.

The pilot is about leaving us, and I cannot omit the opportunity of sending you a few lines previous to my departure. To-morrow will place many leagues between me and my native shores, which I cannot leave without feelings of regret, only ameliorated by the consolation that I may ere long revisit them. \* \* \*

We had a tedious trip of six days from Washington to this place, but the first two or three days were in some measure relieved of their monotony by the novelty of being on ship-board, and the delightful anticipation of being about to realize all my early and cherished expectations.

I hail this as a new and gladsome era of my life, and one which, if properly improved, will eventuate in future profit as well as present pleasure. \* \* \*

On leaving Alexandria we had the promise of a fair wind, and the excitement and bustle attendant on getting under way was truly exhilarating, but since then we have had continual calms. These have been compensated in some measure by the unusual loveliness of the evenings at this season of the year. If you wish to have a specimen of my descriptive powers I will give a moonlight scene on shipboard.

It was on Sunday evening. The sky was serene and cloudless, the air was pure and balmy as it blew faintly from the shore with just force enough to make the flagging sails swing heavily against the mast. The creaking helm seemed to chide our inactivity. The moon was at the full and shone out with unusual resplendence, and, reflected on the calm mirror of the waters, seemed an expanse of molten silver beneath us. Above, the dark masts and spars of the

vessel were thrown in dark shade and showed their well-defined outlines in bold relief upon the pure blue sky. At this time we had dropped down the river as far as the tide would permit, and orders were given by the pilot to come to anchor for the night. This order was cheerfully obeyed, the sailors becoming weary of inaction; and my reveries occasioned by the tranquility of the scene were interrupted by the hoarse mandates of the pilot, the spirited "heave yeo" of the seamen and the discordant rattling of the blocks and rigging. With all the alacrity attendant on marine discipline the sails were soon clue'd up and taken in as if by magic, and as the last lumbering sound of the ponderous cable died away upon the waters, each one repaired to his post. Some, however, collected together in groups to rehearse their adventures or to become better acquainted, having most of them met on this voyage for the first time. The low and suppressed hum of their voices continued for a time, with occasional loud merriment at some happy effort of wit from a jovial comrade, until weariness or inclination inviting repose they betook themselves without choice to the hard planks of the deck or threw themselves on the water casks or capstan for their bed, and enjoyed a slumber more refreshing than I could find in my stateroom.

\* \* \* \* \*

After leaving the Chesapeake Bay and getting out to sea, I experienced a feeling of solitude and isolation which I cannot well describe. I had seen the last faint outline of the receding coast fade away in the west with the setting sun, and even after the darkness had closed in upon the horizon we could still descry the light-house beacon at its extreme verge, which appeared

"Like a star in the midst of the ocean."

As it gradually receded, and finally disappeared beneath the waves, with every other vestige of our lovely land, I could not help recalling to mind those sentiments which Byron so well expressed in a similar case in his *Childe Harold*.

When I ascended the deck the next morning no traces of land were to be seen, and the sea had assumed that deep azure tint which is so peculiarly remarkable out of soundings, where it is always of a green color. As far as the eye could reach nothing could be seen but an endless succession of billows crested with foam, around which sported innumerable sea-birds following untiringly in our wake, as if to accompany us on our lonely voyage. There was a companionship in their presence and a kind of relief in having some object for the eye to rest upon in this vast waste of waters. The kind of sea-birds commonly known among sailors by the name of *Mother Carey's chickens* are very peculiar in their habits, and passengers, generally for want of other amusement, soon make acquaintance

with them. They follow in the wake of vessels frequently for more than a thousand miles, seeming never to rest or sleep, and subsisting on the refuse food that may chance to fall from the vessel.

The novelty of the open ocean soon wore off; and the days of imprisonment seemed to "drag their slow length along" with most tiresome monotony, and the occasional sight even of a piece of driftwood or a mass of sea-weed had something interesting in it.

An ice island, the spouting of a whale or a school of porpoises were great and remarkable incidents *faute de mieux*, and if, perchance, a sail hove in sight the anxiety became intense to know her name and destination. Day after day presented nearly the same scene. We were going onward and onward with rapidity; but still there was no landmark of reference to show that we gained on our long journey. We were still in the center of succeeding circles whose bounds were in successive horizons. The sun rose and set in the sea again and again, with the same stupid rotation. We seemed excluded from the world—a mere fragment of matter, and yet a little world within our own sphere; or, as Irving says in his "Sketch Book," "Like a fragment of a world we were hastening on to join the general mass of existence."

You may judge of my delight when we entered once more the green waves whose color told us we were on soundings. The lead was thrown and indicated sixty or seventy fathoms. Still we were a great distance from land. Some sand and shells were brought up, and I first hailed from them the soil of old England. It was my original intention to land at Cowes, in the Isle of Wight, thence to have proceeded by the way of Havre to Paris, but as no pilot boats were off that place I was compelled to land at Dover.

On leaving the ship I felt as if I had parted with all that was American, and followed with my eye our flag until it was lost from sight by the projecting cliffs that jut out at this part of the British Channel. These cliffs which, at a distance, appear like an immense wall or fortification extend up the channel a considerable distance, and to the eye, unaccustomed to such scenery, create an optical illusion by which we cannot correctly judge of the magnitude or height of the cliffs except by a near comparison of them with the shipping and buildings in their vicinity, which shrink into comparative insignificance. Being composed of chalk they have a beautiful and white appearance. They are surmounted by the towers and battlements of this well-known Dover Castle, and the town is embosomed in a delightful valley or ravine at their base. The houses are generally built in this valley or around a semi-circular beach, among the surf of which our boat was run ashore.

It was doubtless at this place that the Roman legions effected their landing when they made a descent upon the island, and my fancy was indulged for a moment in conjuring up the disciplined legions and cohorts of Cæsar, whose motto was ever, "*veni, vidi, vici*," and imagining the frowning battlements to be peopled with the barbaric hordes of

ancient Britons. In such fancies and the pleasurable sensations created by first setting foot upon the soil of our ancestors I would willingly have indulged, had they not been interrupted by the matter-of-fact-circumstances of being annoyed by a crowd of lackeys, custom-house officers and porters whose importunity was worthy of a better cause.

I stayed here but one day, during which I had ample opportunity to visit the castle and neighboring cliffs. It was gratifying to meet at my outset that which in my youthful notions and early love of the picturesque seemed most desirable to be seen—an old castle and in ruins! Here was the antique and picturesque, and I thought myself almost compensated at first for the toil of my journey. I promised myself a rich treat in exploring its turrets, cells and covert way, and am happy to say



I was not disappointed. As the packet-boat did not start for Calais until the next day, I took a ramble along a circuitous path in the direction of the castle, which led to the main entrance or gate. Here an old pensioner met me and volunteered to show me the interior. He was decrepit and garrulous, and gave me even more information than I wanted. He hobbled on before as well as the infirmity of age would allow, and at every step rehearsed his oft-repeated story. He was an old veteran who gained a precarious subsistence from the bounty of the curious, and well earned his half-crown fee.

I was pleased with the specimens of Roman, Saxon and Norman architecture which were here confusedly blended together, showing the progressive improvements in ancient warfare in different ages contrasted

with the modern. This fortress, once impregnable before the introduction of firearms, is a demonstration of the total inefficiency of ancient defenses to sustain a modern siege.

What is called defilement or commandment was formerly unknown, and this noble work, which if isolated would still be a stronghold, may be battered without difficulty from the neighboring hills.

It is surprising that no authentic traditions remain and no manuscripts or chronicles of its early history are extant, except those traditions that are full of exaggeration. By some the castle was said to have been built by Julius Cæsar, and others, with more probability, tell us it was built under Claudius Cæsar in the year 43, when Plautus was consul; others say in 49.

The characteristic features or horizontal trace is decidedly Roman. The form of the camp, ditch, parapet and octagonal outworks also indicate Roman work, notwithstanding their high parapets and deep ditches show the innovations of Norman and Saxon engineering.

I passed through the portal of the keep and under a noble archway where the remains of an old portcullis are to be seen. Near this, I was told, was the constable's tower, in which are the old keys and the warden's horn.

The keep is a kind of citadel in the interior of the work, which was erected by order of William the Conqueror after the design of Crundulpt, Bishop of Rochester. Being erected in 1154 it is now 675 years old. The garrison now occupies it as a barrack and magazine, where I had the gratification of seeing a well-disciplined detachment of the Forty-first Regiment just returned from India. The garrison at present is 300 strong.

I could not but witness with regret the demolition which was being made of a part of this venerable antique structure to give way to some modern improvements.

The well, calculated for supplying the garrison in time of siege, is 380 feet deep, the heights being only 300 feet.

Upon the apex of the hill, within the walls, is the most interesting antiquity called the Pharos; the date of its erection is unknown, but I was told by my guide that it was attributed to Julius Cæsar's time. Near this is a ruined church or, perhaps, a temple, from which we have a most extensive view of the British Channel and the adjacent country. The whole fortress is built of silicious rubble interlaid with Roman tiles, which has become as indurated as stone by time, and the walls, which are generally six feet thick, bid fair to withstand the storms of as many ages as have already passed over them. It is mortifying to human pride to contrast these enduring piles with our own ephemeral existence.

The beauty of the prospect can hardly be imagined by an American, whose eye is accustomed to rest on interminable forests, in contemplating the aspect of English landscape. The country, everywhere

cleared up and pruned of trees, presents a continued succession of richly cultivated fields and variegated colors of the ripening grain, grass enclosures, and the well-harrowed soil interspersed with neat and beautiful thatched cottages.

My guide's loquacity marred my enjoyment considerably, and, desiring me to descend by one of the courtways of the parapet to a small battery below, he showed me that celebrated piece of ordnance well known by the name of "Queen Elizabeth's pocket-piece." It was cast in Utrecht in 1544 and presented to the Queen by the States of Holland. It carries a twelve-pound shot about as far as an eighteen-pounder. It was fabled to carry a ball to "Calais green."

This handsome piece has been lately remounted on an elegant brass carriage presented by the Duke of Wellington. On the chase of the piece is an inscription in old Dutch, which, not being able to decipher, I rely on my learned guide for the following translation:

"Over hill, over dale I carry my ball,  
And break my way through mound and wall."

## II.

PARIS, July 12, 1828.

\* \* \* Since my arrival I have applied myself to the study of lithographic drawing, in pursuance of the instructions and request of the War Department, and I am pleased to be able to send you a specimen of my *First Trial*, which has been very successful. (See p. 498.)

I have already made a report to Colonel Roberdeau on the subject

## III.

PARIS, August 25, 1828.

\* \* \* You request me in your last letter to give you a minute account of what transpires from day to day, but I must consider before I should attempt it; however replete these new scenes may be with interest and novelty for me, a description of them may be quite uninteresting to a reader. I have a great aversion to journalizing, and I will for that reason only give you a *cursory* account of the most remarkable objects I have visited.

Nearly every day since my arrival has been pleasantly and profitably occupied. On the first day I alighted from the diligence at the Hotel Montmorenci, where the Americans generally resort; but not finding the accommodations so good as I wished I soon after looked out for more agreeable quarters. I joined some of my countrymen in their mess at No. 2 Rue Vivienne. On the first day the time hung heavily upon my hands, and I sallied out alone to while away the time. I bent my way at random down the Rue Richelieu, and accidentally found myself in the Place Carousel in front of the royal palace of the Tuileries. I was not struck with its appearance at first, and felt more



reverence for the old castle I had left behind me at Dover. On my subsequent visits, however, I became more reconciled to it, and was even pleased with its appearance. It encloses three sides of the square, and is made up of several orders of architecture, according to the fancies of successive reigning monarchs, all combined with tolerable harmony. It was founded by Catherine de Medicis, and completed by Henry IV, Louis XII and Louis XIV. A high iron railing passes through the middle of the square, and in its center stands the



LIEUT. FARLEY'S "FIRST TRIAL."

main gate or triumphal arch, copied from the Arch of Septimius Severus at Rome. The passage through this arch lead to the gardens of the Tuileries beyond the palace. It was with agreeable surprise that I entered these spacious grounds, fatigued as I was with the din and confused bustle of narrow and dirty streets. It appeared as if wealth and art had lavished their stores to embellish this beautiful spot.

Spacious avenues bordered by shrubbery and flowers and lined

with orange-trees and ornamented at intervals by fine groups of statuary, artificial groves and shady walks, green parterres and enclosures, and fountains of refreshing coolness appeared, arranged with the utmost elegance and taste.

Classic and antique statues in marble and in bronze embellished the angles of the walks. Such as the stories of Æneas, the death of Lucretia, the race of Atalanta and Hippome, together with fine copies of the Laocoon, Ariadne, Diana and the Apollo Belvidere. I anticipate much pleasure in being able to renew my visits and viewing these objects at leisure during a stay of several months.\*

August 25th.—Visited Montmartre, the place of martyrdom of Saint Denis, defended by the French against the allied troops. Traces of that sanguinary contest yet remain. The hill commands a fine view of the city and its environs.

August 26th.—I attended a fête to-day at Nôtre Dame, at which the king was expected to attend. This church, founded by Saint Denis, the tutelar saint of France, upon the ruins of a temple dedicated to Jupiter, Castor and Pollux in the reign of Tiberius, bore the name of that saint until 552, when it was rebuilt by Childsbert I and dedicated to the Virgin Mary. It is a fine specimen of Gothic architecture and contains several paintings by celebrated masters of the French school.

The sacristy contains some fabled relics for the edification of devotees, such as a piece of the veritable cross and part of the crown of thorns of our Saviour, so we are told. But what is more interesting are the costly regalia of several monarchs, viz.: the splendid coronation robes of Gobelin tapestry worn by Louis XVI, and those of Napoleon, Louis XVIII and Charles X, together with costly vases, crucifixes and other antiques, some of which are coeval with the foundation of the church.

This being, as I observed, a holy day or *jour de fête*, a great deal of unusual ceremony was observed in consequence of the King's attendance. The shops were all closed, the square in front of the church was hung with Gobelin tapestry, the streets for near a mile were lined with double ranks of soldiery and the populace thronged every avenue.

As it was necessary to wait an hour or two before his arrival we had time to observe the ostentation of Catholic worship, and to compare it with our own more humble devotion. It must be confessed that there is something imposing in these ceremonies, combining princely splendor with mystified preparations.

The effect of this scene was strange and novel. On the one hand

\* This officer of the U. S. Artillery was under instructions from the War Department to acquaint himself with the best methods of lithographic art and engraving employed in Europe, for the purpose of introducing them in the Topographical Bureau, U. S. A., and the U. S. Coast Survey. The furlough granted him was also to afford him an opportunity to improve his talent in the fine arts.

was seen the archbishop, arrayed in his costly robes and insignia, attended by priest offering up incense to the silver image of the Virgin, while near them, and almost at the foot of the altar, several sentinels were posted. On the other hand were other priests performing on musical instruments in accompaniment to the grand organ, whose deep tones echoed through the lofty Gothic arches and mingled with the military music of a body of soldiers who advanced up the marble pavement of the aisle and formed in files on each side at the word of command.

This, which to us would appear rather an incongruity, was considered quite a matter of course with the Parisians.

## IV.

PARIS, August 27th.

My next excursion was to Versailles. The King was to have reviewed the troops on this day. Every vehicle was put in requisition. We found the gardens more beautiful, if possible, than those of the Tuileries, on account of their commanding a more extensive prospect of the fertile and picturesque country that surrounds them. They are arranged on the principles of landscape gardening and contain much variety in sculptural ornament. The grounds are diversified with temples, pavilions and statues interspersed among shrubberies, parterres, sheets of water, cascades and *jets d'eau* in every direction. The most advantageous view is on the lawn or plateau in front of the palace where the grand fountain of the Dragon occupies the foreground with the water walk with all its numerous cascades and elegant groups, and the pyramid and château appearing between the dark woods closed the perspective.

The troops, amounting, as I understood, to about 5000 or 6000 men, were drawn up on parade for inspection, but a heavy shower prevented the appearance of the King, to the disappointment of many thousand spectators. The Swiss Guards were the finest body of troops I have ever seen, and the troops of the King's household also appeared to be composed of the élite of the army, being mostly young men of noble families.

August 28th.—The Louvre and the Luxembourg. The former contains the works of the old masters of all the different schools and the latter is appropriated to the works of living artists. They are collected and arranged in such a judicious manner that one may easily compare their respective merits and find an inexhaustible fund of instruction and amusement. These galleries are constantly crowded with visitors and artists, and amateurs have always access to copy the paintings.

August 29th.—The Garden of Plants. As almost every institution belonging to the public is thrown open to inspection for foreigners by showing their passports, I found no difficulty in visiting

the *Garden des Plants* where the rarest specimens of nature, history, anatomy, botany, etc., are gratuitously exhibited.

No place perhaps in the world affords such facilities for the acquisition and diffusion of knowledge as Paris, for here the humblest individual has access to the fountains of science.

The arrangement of plants, etc., in the Botanical Department is excellent. They are placed in soils and situations congenial to them and are all labeled.

In the Department of Natural History are all kinds of animals from the arctic to the torrid zone, ranging freely in enclosures allotted to them, etc. The menagerie is extremely interesting to the man of science, being well stocked at a great expense and care.

August 30th.—The Royal Observatory. In the garden of the Luxembourg this observatory is situated on that celebrated meridian between Dunkirk and Barcelona, which served to ascertain the size of the earth and establish the present standard of French measures.

Among many fine instruments was a telescope twenty-eight feet long and eighteen inches in diameter. The observatory was erected in 1667 and presents another instance of the munificence of this government in the encouragement of science. During the last year 300,000 francs were expended merely in external embellishments of this building, while our own economical government, with a full treasury, is hesitating to devote a few thousand dollars to the establishment of a similar institution, which is so much needed.

August 30th.—Received an invitation card to the Chamber of Deputies from General Lafayette. He is unwearied in his attentions to our countrymen and his house seems to be their home, so much does he enter into our feelings and interests.

*Gen<sup>l</sup> Lafayette! Compliments to Gen<sup>l</sup> Lafayette and send him  
a ticket for the House of Deputies; tomorrow is the last day; the House  
will begin to work; if Gen<sup>l</sup> Lafayette did not make his speech in the House of Deputies  
9 days, I think it  
Lafayette.*

August 31st.—Visited the beautiful cemetery of *Père la Chaise*. Its magnificence is unparalleled by anything of the kind and accords with that of the city. Every species of sepulchral or funereal ornament which the ingenuity of this refined people could devise or wealth could obtain is here to be seen. The most distinguished characters of the two last centuries are buried in this place.

Sept. 1st.—*École des Ponts et Chaussées*. I have obtained permission to visit this institution at my leisure during my stay at

Paris. It contains models in relief of the principal civil works in France, such as bridges, locks, canals, etc., and I find that I shall derive, from their inspection, a great deal of useful information on the subject of Civil Engineering. I have also visited the Conservatory of Arts and Trades, which is an extremely interesting institution, and assimilated to our Patent Office. \* \* \*

*Madame Louis de Lasteyrie et Monsieur le  
Général La Fayette ont l'honneur de vous faire part  
du mariage de M<sup>lle</sup> Pauline de Lasteyrie leur fille  
et petite fille, avec Monsieur Charles de Remusat.*

*Et vous prient d'assister à la bénédiction nuptiale  
qui leur sera donnée en l'Eglise de l'Assomption le lundi  
18 Août, à 10 heures précises. et D<sup>ma</sup>*

V.

PARIS, September 13, 1828.

I have just returned from a visit to General Lafayette, our country's benefactor *par excellence*, as he is called. It was my intention to have delayed this visit until my departure for the south of France, as I would then have passed La Grange on my journey. But Lieutenant Fessenden and I, while attending recently the nuptials of M. Remusat and Mademoiselle Lasteyrie, were given a pressing invitation by the general to go out to the château with the bridal party. This invitation was seconded by Mr. George Washington Lafayette, who called expressly to tell us that his wife and daughters, whom he wished us to meet, were then staying at the château, but would soon return to their residence at Auvergne. We had no inclination to decline such a pleasant excursion, and accordingly took our seats in the diligence the next morning for Rosay, a small town in the neighborhood of the château. The distance from Paris is thirty or forty miles. The road being good and the weather delightful, we accomplished our little journey in a few hours without fatigue.

At Rosay the general's carriage was waiting, and we were soon at the castle. My previous conceptions of the place were not very just.



*General Lafayette*

NOTE.—Pen and ink sketch from life by Lieut. Farley.

I had supposed it was situated on an eminence like most castles of feudal times, but, on the contrary, the country around is unusually level. The consequence is that the distant view of it is scarcely remarkable, and nothing is to be seen but the acute conical roofs of the towers rising above the dark green foliage. We were compensated, however, by a nearer view, for the approach to the main entrance is by an avenue lined on each side by dark hemlocks, which fling their heavy boughs across the path, forming a deep, shady vista, through which is seen the picturesque arch of the northern gate, overgrown with ivy and flanked by the circular towers.

Above the gate and in the towers were a few crenelated loopholes intended for defense formerly, which now perform the less belligerent office of windows. They were nearly obscured by the luxuriant growth of ivy, through which peered the figures of the domestics or the younger members of the family whom curiosity had drawn thither to reconnoiter the newcomers. All this side of the building was in deep shade and the sun, which was just setting, threw his rays obliquely across the courtyard within and relieved out the archway and exterior walls with beautiful effect, and the rich, mellow and golden tinge which was shed over all the conspicuous objects within and above, gave more somber and gloomy shade to the dark hemlocks. I was much prepossessed with the external aspect, and everything within promised domestic comfort and hospitality truly in keeping with its venerated proprietor. Like him, there was something venerable and patriarchal in its appearance as it overlooked the surrounding hamlets of the peasantry, and though war-worn and antiquated and like him a remnant of other times, all was plain and unaffected within.

We drew up in the courtyard and, on alighting, were shown into the general's library, where we received his benovolent greetings and his kindest welcome. He then introduced us to all of the members of his family, which consisted at that time, including his grandchildren and those who were collected together on this bridal occasion, of about sixteen or seventeen persons. It was delightful to see the old gentleman surrounded by his children, all joyous, happy and affectionate as they are, and looking up to him with feelings of pride and exultation in his well-earned fame. He seemed to remind me of the venerable remains of an old oak, which once proudly overtopped the trees of the forest, from whose root the young scions spring up and whose shattered trunk is crowned with the ivy and the laurel.

Among so many young persons, as were there, we were at no loss for amusement, and the Mademoiselles Lasteyrie and the pretty daughters of George Washington Lafayette exerted their charms of conversation and accomplishment to entertain their guests. Of the latter, the drawings of Clementine and the vivacity of Matilda contributed a great deal to our entertainment. Every mode of diversion which they could devise was successfully tried to make our time pass



agreeably, and we beguiled our time alternately between music, paintings, walking and conversation. Among other things we were shown the little room in which the general has collected all the Indian curiosities and presents which have been made to him from time to time, quite a miniature museum, which he takes great pride in showing.

The same may be said of his farmyard or grange, from which the place takes its name. It is a large rectangular enclosure with buildings around it in which he not only keeps his live stock, of cattle, etc., some of which are rare presents, but also his aviary, consisting of beautiful wild and domestic birds.

On the first evening we sallied out to take a walk around the château by a road which leads for about two or three miles among the trees and lawn in its vicinity. On the next morning I awoke at an early hour and the novelty of having slept in an old castle being somewhat unusual to me, I determined to explore my romantic position, and, dressing myself, I descended the circular staircase of the tower before any one was astir, and, crossing the moat, emerged upon the open lawn in front of the château.

It was about sunrise and the eastern front of the castle appeared in all its beauty. I took a turn down a walk that led to the garden around the outer edge of the moat. It was hemmed by drooping willows, the branches of which hung over the ditch in which they were reflected as in a mirror, with a thin outline relieved by the perfect reflection of the blue sky. The battlements all gave back their inverted image. The morning air was pure and serene, and the surface of the water was perfectly unruffled. The spire of what was formerly an old abbey rose above the trees on the one hand, finely contrasting with the odd architecture of the old castle on the other. I stopped to contemplate a scene of so much tranquility and beauty and regretted that I had omitted my pencil in this instance. There were three towers on this front nearly obscured by ivy, from one of which I could distinguish the tones of Clementine's piano, as she was practicing before any of the family had risen. While we remained at La Grange there was scarcely a nook in the park or adjacent grounds that was not explored by our charming young guides, who seemed determined that no favorite haunt of theirs should escape our admiration.

The general, in consideration of my acquaintance with his friend, Mrs. Lewis, showed me many little mementos he had received from the Custis family, among which were medallions containing the names of Washington's family and a ring set with the braided hair of Washington and Franklin.

While he was in this country Mrs. Lewis presented him with a view of her residence at Woodlawn, which she had requested me to sketch for him, but which, having been made some time since, I had nearly forgotten. He, however, gave me a proof of his better mem-

ory by reminding me of the circumstances and by showing me the drawing which is hung up in the library tower. \* \* \*

His library and salon are ornamented with the busts and portraits of our Presidents and other distinguished patriots, together with that of Kosciusko, and everything in compliment to us is done in American style.

LAFAYETTE'S COMMENT ON DEATH OF ADAMS AND JEFFERSON.

John Adams and Thomas Jefferson. It will be remembered that those two patriots died within three hours of each other on July 4th of that year. The handwriting of Lafayette is plain enough not to necessitate the transposition of the following letter into type:

*The wonder is not that two men have died on the same day  
 but that two such men, after having performed so many and  
 such splendid services in the cause of Liberty - after the hardships  
 of other vicissitudes which seem to have linked their destinies  
 together - after having lived so long together, the objects of their  
 country's joint veneration - after having been spared to witness  
 the great triumph of their toils at home - and looked together  
 from Jizgah' 1 top on the sublime apex of that grand impulse  
 which they had given to the same glorious cause throughout  
 the world, should on the fiftieth anniversary of the day  
 on which they had ushered that cause into light, be both  
 caught up to Heaven, together, in the midst of their raptures!*  
*Lafayette*

I have forwarded by another conveyance an autograph of his, on which I will make no other comment than to repeat his own words when he gave it to me. He says, "that if you should detect him in a plagiarism you must, at least, give him credit for a man of taste in the selection of the lines he has sent you." (See opposite page.)

He enjoys good health at this time and takes great satisfaction in walking around his farm and showing it to his numerous visitors. There are already eight strangers here, and Mrs. Mayo and her party are expected shortly.

Being sensible of the inconvenience to which they must be sub-

La Grange 7th July 1828

Dear Sir, My good young friend, the two Album Materials that have been  
kindly asked from me. Should the Amiable collector direct me to have send a  
quantity they will at least be me the price to which I have found a Man of  
put in my collection.

You will, I hope, be me. Know in time when I am to prepare my collection  
letter. Better will it be to come and fetch them yourself at the Grange the  
introduction of which, please you with their local compliments

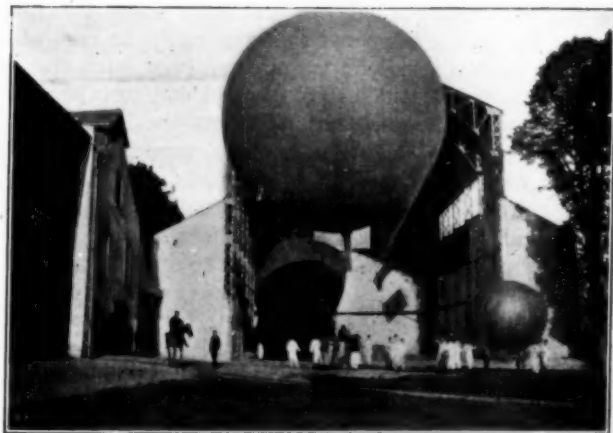
Most truly and affectionately Yours I  
Lafayette

jected by such a continual crowd of guests, we shall shorten our visit as soon as we can find an excuse for taking leave of them. We paid a passing tribute to the memory of the unfortunate Somerville by visiting his tomb, which is about a mile from here and in the cemetery belonging to the castle. It is designated by a plain horizontal slab of white marble, and at the head of the grave is another slab on which is inscribed in French and English his name, rank and his request to be interred at La Grange, together with a testimonial of the general's regret and friendship, etc., the whole enclosed by a neat iron railing.

The general took leave of us in a truly paternal and affectionate manner, saying that he regarded us as his American sons, and we on our part left him with that regret which always accompanies the thoughts of leaving a friend whom we never expect to see again on this side of the grave.

[TO BE CONTINUED.]





MILITARY BALLOON PARK, VERSAILLES.

## BALLOONING.

BY LIEUTENANT FRANK P. LAHM, SIXTH CAVALRY,  
UNITED STATES ARMY.



IN these days of rapid advance in the domain of science perhaps no one branch is making more rapid or more startling advances than the "conquest of the air."

We have had spherical balloons ever since 1783, and the French used one successfully for purposes of observation at the battle of Fleurus in Belgium in 1794. A passenger balloon was sent up out of Richmond in 1865. During the siege of Paris in 1870-71, the railroad stations were all turned into balloon parks, and sixty-five spherical balloons were sent out, carrying 152 passengers, thousands of letters and several hundred carrier pigeons. Thus by means of the balloons and pigeons, communication was kept up with the besieged city all during the siege.

In most European armies there are balloon troops who devote their entire attention to the subject. In France, one battalion of the First Regiment of Engineers is a balloon battalion. The headquarters are at Versailles, not far from Paris. Here they have a balloon park with three large sheds

for sheltering inflated balloons, a large plant for making hydrogen gas and a large park of matériel. In case of war, they could send out balloon trains from here, each consisting of one wagon to carry the balloon and car, another for the windlass to wind the rope on which lets the balloon up and down when used as a captive, another wagon for the engine to run the windlass, a repair wagon and as many tube wagons as are required. These last carry six tubes each, each tube with a capacity of about 1000 cubic feet of compressed hydrogen. About sixty men are required to operate one balloon. This includes engineers, firemen, tailors for repairing tears in the envelope, etc. Every summer one company of the balloon battalion goes to the large camp at Châlons for practical work in connection with the other troops. Once a week in summer, a free ascension is made from Versailles to give the officers of the battalion practice in handling a free balloon, and in effecting a landing under different circumstances of wind, terrain, etc.

The signal corps in our army has just collected its balloon matériel at Fort Riley, and it is reported that they are about to begin a series of experiments there.

The *Aéro-Club de France* has a balloon shed just outside of Paris, and an idea of the popularity of this sport among its members can be formed from the fact that as many as three and four balloons go up from here at a time, and last year there was an average of one a day for the entire year. In 1900, two members of the club went from Paris to a point in Russia in their balloon, covering over 800 miles in twenty-one hours and a half. A member of the Spanish club has just succeeded in crossing the Pyrenees from France into Spain in his balloon, winning the cup offered by the French club to the first to accomplish this feat. Mr. Gordon-Bennett has recently offered an international cup, similar to the automobile cup, to be contested for by the members of all the different balloon clubs. The first race is to be held this summer and is to start from Paris.

Besides three clubs in France, there are similar organizations in Belgium, Germany, Austria, Switzerland, Italy, Sweden, England and Spain. Contests for distance, height, etc., are being held constantly, under the auspices of these different clubs.

And now we have one of our own in this country, the "Aero

Club of America," with headquarters at New York. This recently organized club is starting out under very auspicious circumstance. Already it has a membership of over two hundred, including many of New York's most prominent people. An aerial exhibit under the able management of the club's secretary, Mr. Augustus Post, was held in connection with the automobile exhibition in January. Several balloons



ABOUT TO START FROM AERO CLUB, PARIS

have already been purchased and ballooning bids fair to become, in a very short time, as common in America as it is in Europe. The first ascension under the club's auspices was made from West Point on February 11th, by Mr. Levée, a member of both the French and American clubs, in his 12,000 cubic feet balloon *L'Alouette*. An enthusiastic crowd of New Yorkers and of officers, cadets and soldiers was present to see



him start. He landed at Kingston, New York, having made about fifty miles.

The spherical is the best pleasure balloon, and no one unless he has been up in one and looked down on the real map spread out below him—roads, towns, rivers, forests, stretching out on all sides, disappearing behind—can form any idea of the pleasure, of the feeling of exhilaration, of mastery, it gives to be able to sail over the country at an altitude of a thousand feet. Then you go up and the earth is shut out by the clouds beneath you. Then you might imagine you were out at sea, only it is a silent sea, the waves are softer than those of the sea, and roll over each other without a sound. It is like being transported to another world, a silent world where the only living thing is yourself.

But the "conquest of the air" is not to be made by the spherical balloon.

The next step is the dirigible of the Santos Dumont or Lebaudy type, a cigar shaped gas bag, holding a motor, propeller and rudder suspended beneath it.

In the summer of 1901 Mr. Santos Dumont started from the balloon park near Paris, circled the Eiffel Tower and returned to the starting point, making the distance of about seven miles in exactly thirty minutes. For this performance he won the Deutsch prize of \$20,000.

Last summer the Lebaudy dirigible started from Moisson, thirty-three miles north of Paris, and traveling by easy stages reached the camp of Châlons, a distance of 132 miles, in three days. Here, due to not having proper shelter for the large ship, a storm which came up in the night drove it into a tree, damaging the envelope so badly that the journey had to be stopped. The actual running speed on this trip was about twenty miles an hour. Later the Lebaudy made numerous trips from the fortified city of Toul in eastern France. The War Department sent out representatives to observe these maneuvers. Finally, in October, the Minister of War himself went up and made an inspection of the fortifications around Toul from the airship. Soon afterward the French Government purchased the Lebaudy and it is now stationed at Toul for the use of the army. Within a month a new one was ordered from the same firm, to be ready in seven weeks, and presumably for use on the German border.

In our own country Knabenshue has made the most progress in this line. Last August he made a trip from Central Park, New York, down to the Flatiron Building at 23d Street and back.

But those who have studied the question carefully are generally of the opinion that it is neither the spherical nor the dirigible that is to solve the question of the "conquest of the air." It must be solved by a machine which is "heavier than the air."

For years experiments have been made along this line with various forms of kites, flying machines or aeroplanes, and it is with this last device that it is believed the question has recently been solved, not by the French, who have always



DANISH AEROPLANE, RUNNING ON GROUND BEFORE RISING.

been the leaders in aeronautics, but by two skilful and ingenious Americans, the Wright Brothers, of Dayton, Ohio. Last October, after a series of experiments extending over a number of years, they succeeded in making a machine formed of two parallel, canvas covered surfaces, driven by a gasoline motor and carrying one man, which covered a distance of about twenty-four miles in thirty-eight minutes, over a circular course, and the only reason it finally stopped was because the fuel for the motor was exhausted.

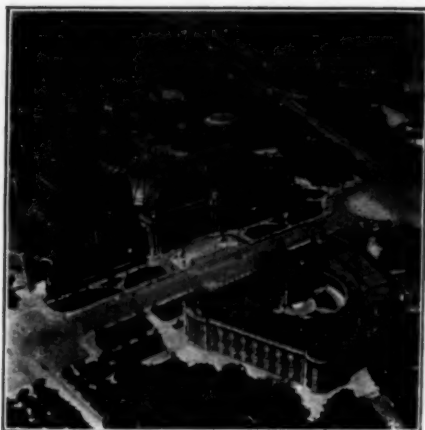
They refused to credit this performance in France when they first heard of it, but after sending a representative over here to verify it, they immediately made plans to secure control of it, and it is now reported that the French Government has paid the million francs which the Wrights ask for their

invention. The fact that it was willing to pay such a price is an indication of the importance it attaches to this invention.

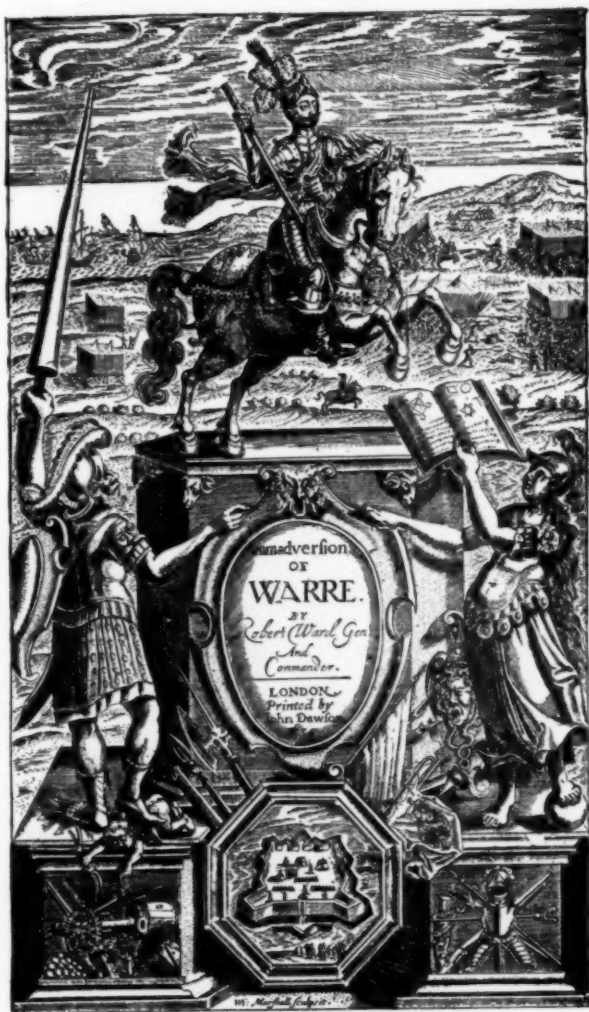
If we are to keep pace with modern science we must have ballooning in this country—we must interest ourselves in this subject of the “conquest of the air.” The Aero Club of America has opened the way.

If we are to keep pace with European armies we must have a balloon corps, furnished with and capable of handling spherical balloons, and ready to go on from there to the dirigible and the “machine heavier than the air.”

WEST POINT, NEW YORK, Feb. 17, 1906.



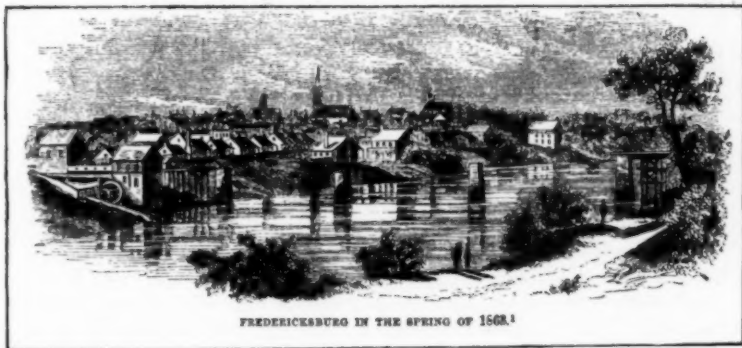
BIRD'S-EYE VIEW OF CHAMPS ELYSÉE, PARIS



Historical Miscellany.



THE BOWARDMENT OF FREDERICKSBURG, VIRGINIA, BY THE FEDERAL, ON DEC. 11.—FROM A SKETCH BY OUR SPECIAL ARTIST.



## TYPES AND TRADITIONS OF THE OLD ARMY.

EXTRACTS FROM THE UNPUBLISHED MEMOIRS OF MAJOR-GENERAL ZENAS R. BLISS, U. S. A.\*

### III. CIVIL WAR NOTES. FREDERICKSBURG, 1862.

WE made our marches regularly with no annoyance from the rebels, though we occasionally heard of skirmishes between the advance guard of cavalry and the enemy. Toward the latter part of November (I do not remember the date) we went into camp opposite Fredericksburg, and remained there several weeks. There were two large brick houses between our camp and the Rappahannock; one of these, the Lacy House, I believe, stood on a hill about a half mile from the river, and was occupied by General Sumner, who commanded the right grand division of the army, in which or to which we belonged. Nearly on the bank of the river and directly opposite Fredericksburg stood the other house, the Phillips, and this was used as the headquarters of our pickets, which were stationed along the east bank of the river, and the rebels occupied the other. \* \* \* As I have no reports to draw upon I shall only tell what fell under my own observation, and all of which occurred in a space covered by 500 or 600 men in line of battle.

There was a road leading from our camp across a deep ravine near my regiment, then across quite a wide plain, where the Corps was once reviewed by General Burnside, and down by the Lacy house, then down a natural terrace into another flat, and across that to the Phillips house. The whole distance from our camp to the river at the Phillips house was perhaps a mile. We received orders to have three days' cooked rations for the men in the haver-

\*Continued from March JOURNAL. Gen. Bliss was (1862) Colonel commanding 7th R. I. Vols.

sacks and be ready to move at a moment's notice. We were all prepared on the night of the 11th of December, 1862, and remained in camp that night wondering what the morrow had in store for us. We of course knew nothing of the plan of battle, that is very few did, but owing to my acquaintance with the officers at General Sumner's headquarters I had perhaps heard more than most colonels in the army. I went nearly every day to Grand Division headquarters, and frequently watched the enemy throwing up breastworks on the heights back of Fredericksburg, and about half a mile from the river. We had a signal station near the Lacy house, and an observer present at all times. We knew the cipher used by the rebels, and could read all their messages that they signaled in sight of our station, and had a very good idea of what they were doing, and I suppose General Sumner had a very good idea of the troops in front of us, and their numbers. General Sumner commanded the Right Grand Division, General Hooker the Center, and General Franklin the Left Grand Division. There were, I believe, three pontoon bridges to build across the river, and under the fire of the enemy's batteries and sharpshooters. The engineer corps went ahead and attempted to build the bridges under cover of the fire of artillery. We had something over 100 pieces on the bank of the river, within pistol shot of the town. At daylight on the morning of the 12th we fell in and marched to the plain between our camp and the Phillips house, and there were halted. We remained there some hours, and I got permission to go to the river to see what was the matter with the bridge on which we were to cross, as it was said we were waiting for that to be completed. I rode across the plain to the Phillips house, and on the bank of the river above the house, and all around it, I saw a crowd of men and several batteries. Colonel Tompkins of the R. I. Artillery, was in command of the batteries. The bridge, built of large flat-bottomed boats square at the end, was completed about three-quarters of the way across the river, but beyond that it seemed impossible to build it. The rebels occupied the buildings along the bank of the river on their side.

Soon after I arrived several men of the engineers took planks and went toward the end of the bridge, unmolested, until they got to the unfinished end, when several threw up their arms, dropped their planks, and fell either on the bridge or into the water. The artillery was making a great noise about us, and we could not hear the reports of their (the rebel) rifles, and it seemed very strange to see the men fall without any apparent cause. This attempt was repeated several times with the same result. When the building party would get near the end of the bridge they would receive a volley from the rebel sharpshooters at not more than thirty yards distance, and some would fall, and the others drop their planks and row back under cover of one of the big pontoons. These boats were



perhaps six feet wide, and pointing toward the river, but on the bank; as the men would run back they would crowd up against the rear of the boat, and would be five or six standing shoulder to shoulder, the others would fall in in rear of them, and the farther they were from the boat the less would they be protected, so that the crowd of men took a wedge shape, running down from six or more in front to one at the end, and he squeezed up as closely as possible to the others to prevent being struck. In a few minutes the firing would cease and these men would get into a safer place. There were hundreds of men on our bank of the river, most of them had come, perhaps as I had, from curiosity, and though we could not have been more than 150 or 200 yards from the enemy, they did not fire on us. Only one shot came into the crowd that I knew of. I was sitting on my horse near the edge of the hill, surrounded by hundreds on foot, when suddenly a ball struck in the crowd, and all broke to get behind the house; the men on foot crowded in front of me and prevented my moving, and they seemed a long time in getting out of the way, but finally the stampede was over, and as no more shots followed we were soon busy watching the progress of affairs, almost as unconcerned as if there had been no enemy present. After a while an order was received by Colonel Tompkins to open with all his guns, and for the engineers to attempt to build the bridge under cover of the smoke of the guns. It was terribly foggy, so much so that I do not think the rebels on the heights behind the town (Marye's) could see us, and for that reason, perhaps, they did not use their artillery on us. The guns, about 100, opened fire, on the row of buildings along the edge of town, and very soon there was a thick cloud of smoke and dust from the buildings, which at the short range were rapidly knocked to pieces, but the engineers, who again attempted to build the bridge were driven back. I thought there could not possibly be many men on the front of the rebels, and did not think it difficult to build the bridge, and volunteered to take my regiment and build it, and Captain Barrier, of General Sturgis' staff, who was with me, started to tell General Sturgis that I had offered to build the bridge. He had been gone but a few minutes before I saw a lot of men enter some of the pontoons and paddle toward the opposite shore, using them as boats to cross. One of the boats received a bullet from some sharpshooter who still remained, though it did not seem possible that a human being could have lived in one of those buildings, subjected as they had been to the fire of so many pieces of artillery, which tore the walls to pieces, and sent the stones flying in every direction. When the shot struck in the boat, hit someone, all the men in it dropped their paddles or poles and fell down in the bottom of the boat, under cover of its sides, and the boat drifted rapidly down stream. Other boats, however, crossed, and the men from them were soon rushing up the bank of the river, and the rebels

disappeared. I saw one man as he ran up the street in front of me, as he was rushing along some one stuck a musket through a fence, and I saw a puff of smoke and the man fell. I was told afterward that he was a chaplain of a Massachusetts regiment, but I could not tell across the river whether he was an officer or not.

As soon as the men crossed I started on a run to the Lacy house; as I turned the corner of the Phillips house I met General Burnside, whom I think was entirely alone. He asked me what was the news, and I replied: "Everything is all right, the bridge is across, and the rebels driven out of the town," and then hurried on to join my regiment. He smiled and seemed to be perfectly calm and unexcited. As I approached the Lacy house General Hooker came down from the steps and asked me the news; I told him as I had Burnside, and went up on the gallery of the house with him. General Sumner and many other general officers were standing there, and I was asked by Hooker to tell them, which I did. The regiment that had crossed in boats was from Michigan, but I do not remember who commanded it. I went immediately to my regiment, and soon after we commenced our march toward the river. When we reached there the bridge was completed, and we immediately marched across on it. I attempted to ride, but the bridge swayed so from the marching of the men that I thought it would throw my horse, so I got down and led the horse across. As my regiment was on the bridge two or three shells from the rebels struck in the water, splashing the bridge, but fortunately not hitting it or any of my men. The rebels had the range perfectly, and dropped their shells with great accuracy in the river, and very close to the bridge, which they could not see as it was covered by the houses of the city. After crossing I turned to the left and halted my regiment a short distance, two squares from the bridge, on the street next to the river. I stacked arms there, and ordered the men to remain near the stacks of rifles, went back to the street leading to the bridge, and sat down by General Sturgis and watched the passage of the other brigades across the river. One brigade came around the Phillips house and had a band in front, which was playing "Bully for You"; as they came to the edge of the steep bank of the river, a shell, fired with fearful accuracy, exploded in the midst of the band, which scattered in every direction amid the shouts and laughter of the crowd who were watching the brigade. I saw what I supposed were three or four overcoats lying on the ground the band had occupied when the shell exploded, and supposed that in their hurry to escape some of the men had dropped their coats, and was very much surprised to see several stretcher-carriers soon make their appearance and pick up the supposed overcoats, which were wounded or dead men. It was a not uncommon occurrence to see men laugh and shout when a particularly good shot was made by the rebels, and one or more of our men were

torn in pieces by a shell. Many men have laughed at such occurrences who would be insulted if told that they were not perfectly cool at the time, but the fact that they could show levity at such a tragedy showed plainly the condition they must have been in without suspecting it themselves. During the day and night all our Grand Division crossed on that bridge, and the other troops, which had much less trouble, had crossed the Rappahannock below us, and the army was on the rebel side of the river, and had suffered scarcely any loss, but had been greatly delayed.

Two hundred men delayed an army of at least 30,000 men (our Right Grand Division) several hours, and though it did not make any great difference in the result, it might have caused the loss of a battle. I was told, a few days before we crossed the river, that the Army of the Potomac numbered, on paper, 150,000 men, and I supposed that Burnside must have had nearly 100,000 men for duty that day. There was very little firing during the afternoon and night, and the men laid in the streets, and I took a bed I found in a vacant house, and my field and staff occupied the bed and room with me. It was a terribly dark night; the fog which had existed several days was as thick as ever, and there was a drizzling rain, and as there were of course no lights in the street, it was almost impossible to get about from one house to another. Just at dark Captain Mighels, adjutant-general for General Sturgis, came to me and asked me if I did not want to ride out to the grave of Martha Washington. I told him, "yes," and we mounted our horses and started. It had gotten quite dark by the time we reached the edge of town, going toward the graveyard. As we rode along we heard someone call from behind us, and asked us where we were going; we told him, and he said: "Well, you had better come back; I am the last of our pickets, and the rebels are right ahead of you," and we turned and rode back. Why we were not fired on was a mystery, for we were within fifty yards of the enemy's lines. Mighels remained with me that night, and he and I slept in the bed. He got a chicken's head that had recently been cut off, and drew a sort of horseshoe on the wall over the back of the bed, and put around it cabalistic signs and figures, saying he was going to "hoodoo" us. After it was drawn he went through with some absurd performances, and pronounced the charm complete, and that we would pass through the battle unscathed. He slept on the back side of the bed next to the hoodoo, I next, Page next, Babbitt next, then Sayles, the doctors and the chaplain. After going through his incantations we were soon asleep, and sleeping as soundly, as far as I know, as we ever did, though we all knew there was to be a terrible battle in the morning, and that probably some of us would pass in our checks. Nearly all the inhabitants had left the town, and during our stay there of three days

I saw but one citizen; he had remained to look out for his house and property.

During the evening some of the Zouaves found a place nearly opposite our house where a lot of bacon and flour had been "cached"; they got lights in some way and commenced digging up the provisions. The rebels must have seen the lights, for while the Zouaves were digging away and congratulating themselves on their find, a shell was dropped and exploded right in the midst of them, and several were wounded. The part of the street in front of our house had been burned and several chimneys were left standing, and I cautioned my men to keep away from them, not to put their blankets for the night where they could be hurt by the falling bricks and stones. I think my men followed my advice, but others were less careful, and during the night one or more chimneys fell, killing or wounding several. I have said that during the day and evening our army crossed the river; the artillery and cavalry did not cross, at least but a very small portion of it. There was no use to which the cavalry could be put in our part of the line, and the artillery did not cross, or at most only a very few batteries—I saw only one gun—but they were massed on the opposite side of the Rappahannock where they could have a more commanding position, and perhaps do better service. Though I have always thought that a few batteries, properly protected, as they could have been, would have been of incalculable service to us in the charge next day, perhaps being able to silence some of their batteries, at least have drawn a portion of the rebel artillery fire, which tore our columns to pieces as we rushed across the field against the stone wall and attempted to surmount Marye's heights. But to the best of my recollection not a gun was fired, except one which was at the corner of a street and fired a few shots as I went on to the field.

We were up early on the morning of the 13th of December, 1862, and made our breakfast from the cooked rations we had brought with us from our camp the day before. Firing had already commenced and was very brisk. General Hancock had moved up on to the plain between the city and Marye's heights, and had assaulted them, but had only advanced part way across the plain when he was stopped by the heavy fire of artillery and infantry which, was poured in on him from the heights and the rifle pits and stone wall at the bottom of the hills. I moved my regiment down the street on which we had slept, and halted one or two squares from where we had bivouaced, and there we remained in the street some time. The first man hit in the regiment that I knew anything about was a private who attempted to go up the street on which we were halted, and as we passed one of the cross streets a shell or piece of one knocked off his cartridge box, without hurting him. Shells were frequently flying over us, and some burst over our heads and the pieces, fell in the street. One piece

struck on a slate roof of a building in front of where I was sitting with the field-officers of the regiment; as it fell from the roof it came down very slowly, and a soldier reached out his hand and caught it. It was revolving very rapidly, and when it struck his hand, which he had reached out for it, it lacerated his fingers and made the blood run, but I do not know that it disabled him. I believe that was the first blood shed by my regiment in that battle, but there was plenty of it before night. The street on which we laid was parallel to the river and nearly so to the line of battle. After a while I received an order to move on to the plain and support General Ferrero. He was a dancing master from New York and had been the instructor of dancing at West Point. He was a good soldier, and was commanding at that time a brigade. I moved up one of the streets perpendicular to the river, and when I got to the head of the street, turned to the right and moved along three or four squares, which brought me outside of the city and immediately in rear of our part of the line of battle, as I did not know where Ferrero was, and there was no one to tell me, and we could not fire without injuring our troops, I ordered the men to halt and lie down. We remained there a short time till an aide came along and, asking for me, told me to move to the front and join the other troops already there. When I ordered the men to lie down at this point, I was immediately behind a fence and facing the enemy. They had a battery of heavy guns on our right, and had the range of us perfectly; they were up on the heights and could see us distinctly.

The field-officers were lying down in rear of the men, and the battery was nearly on the prolongation of the line of my regiment. Bullets were flying from the front very thickly. I saw a man clap his hand to his head, and saw the blood trickle through his fingers. He spoke to me and said he was shot; I told him to cover his head with the cape to his overcoat, and remain where he was, as I thought he was very badly wounded. I went to the rear of the line and laid down with the rest. I had been there but a few minutes when a shell passed over my head, pretty close, and struck to my left and ricocheted down the street, without hitting any one. Colonel Sayles was about twenty feet to the right of me; he was lying on his left side and resting on his left elbow, a little diagonally with the general line. Major Babbitt was to my left, near the left flank of the regiment. I was lying on my stomach resting on both elbows. I was looking at Colonel Sayles, when a twenty-pound Parrott shell or shot struck him in the breast and nearly cut him in two. It ricocheted and passed over my head, carrying with it a mass of blood and pieces of his lungs. One piece struck me on the cheek, another on the cap, and a third quite large piece fell between my arms as I laid on the ground, and I scooped up the mud and covered it as it was right under my face. I thought it was a part of his brain, it seemed soft and pulpy. I did not know where he was hit, but I saw the upper part of his body turn nearly

completely around, so that his face was partially toward me, though he was lying with his back to me. Very soon another shell struck near me on the left, passing over my head, and Captain Rodman called to me to come up nearer the fence, that I was directly in range of the shells, and I did so. I had hardly laid down before another shell passed through the bottom board of the fence, and so near me that I could put my hand in the hole it made in the board. A shell from this battery struck Sergeant-Major Manchester, taking off his left arm.

I was very glad to get the order to go to the front, when the aide came up, and immediately gave the order. All the right side of my overcoat was covered with blood from Colonel Sayles' body. I suppose it was about two hundred yards from our lines to the extreme front of our line of battle, and the space was cut by two board fences, posts with four or five horizontal boards nailed to the posts. We went over the first fence, but it took some time for the men to get over, and when we came to the last fence I told them not to attempt to get over it, but for all to take hold of the top boards and pull them off; they attempted it, but the boards were nailed on with railroad spikes and could not be pulled off. I saw a place where a shell or shot had knocked the top boards off, and I ran toward that, and just as I got to it a man stepped into the gap and was hit and pitched headlong over the lower boards, another attempted to pass and he also fell. It was then my turn and I went through. As soon as the regiment was clear of the fence we went on at a run, and I remember that I thought I could see a V-shaped space in front of me, as I ran, in which no bullets were striking, as though they left a clear space for my special benefit. We were soon up as far to the front as anyone had gone, and we passed over the hundreds or thousands of men lying there in line. The fire was so deadly, and the men fell so fast, that I think those who were not hit thought the order had been given to lie down, for without any word from me they all dropped. The color-sergeant, Wiegant, got up, and taking the colors, went eight or ten paces beyond any flags and stuck the staff in the ground, farther to the front than any others had been placed. Of course as soon as we got on the line we commenced firing, and kept it up as long as the ammunition lasted, and then fixed bayonets and remained until we were ordered off the field, after dark. The fire was terrific, and I have never heard anyone say that they ever experienced anything like the fire there for so long a time. I suppose we were about one hundred and fifty yards from a stone wall, sunken wall, behind which stood Longstreet's Division of veterans. This wall was a supporting wall to a cut made from a road that passed along the foot of Marye's heights, and the face of the hills were covered with rifle pits. On top were about twenty-four pieces of artillery, which had a plunging fire on us, and we had not the slightest cover whatever. The field over which we had attempted to



cross had been cultivated, and was nearly level. While we were thus exposed the rebels were so completely covered that I did not see but three during the day, but the smoke and flash of the muskets were plainly visible. We remained in that same place until after dark, without doing the slightest injury to the enemy, but suffering terribly ourselves.

One strange thing that I noticed, and everybody spoke of the same thing, was the rapidity with which time passed. One would think that, lying there as we were, expecting every minute to be hit, and seeing our comrades falling constantly, that the time would have passed very slowly, but it went so rapidly that I was very much surprised when it began to grow dark, and could hardly believe that night had come, though I guess every one on that field was praying for it. After the war, when stationed in New Orleans, I met Major Miller of the Washington rebel artillery. He commanded the batteries on the hills in front of us, told me that as he was passing by one of the batteries a soldier spoke to him and said, "Major, this is not fighting; this is murder," referring to the fact that they were deliberately tearing our ranks to pieces, while their losses were almost nothing. They fired spherical case-shot, principally, and they frequently exploded among our men, killing and wounding many. Adjutant Page had sat down on the ground beside me, and Captain Winn sat on my right. Page asked me how I thought the battle was going, and I told him I did not know, but I thought we were getting the worst of it. Just at that moment a spherical case-shot, filled with bullets and slugs, exploded immediately over our heads, and very close to us, probably not more than three or four feet above us. Page was struck on the head and fell on my left arm. Captain Winn asked if he was killed, and I shook my head, as I did not want Page to hear the remark if he were alive; he did hear it and raised his head and said, "Colonel, I am not dead." I told him he was all right, to cover his head with his overcoat cape, and lie still and I would have him taken off the field as soon as possible. When he raised his head I saw that his left eye was gone, and the blood was streaming from the wound; the projectile entered his left temple and knocked out his eye. At the time the shell exploded I was struck pretty sharply on my left wrist. I had on a soldier's overcoat and had the sleeve rolled up so that it was several thicknesses on my arm, and the bullet struck on the roll and did not break the skin. When Page raised his head I saw the bullet lying near my wrist, covered with blood, and I suppose it had passed through his head and struck me, and I picked it up and told him that was the bullet that hit him, and to keep it. He carried it home and showed it to many people as the bullet that knocked out his eye. Three weeks after he was wounded he had a slug of lead pipe, that had been pounded together and then cut off into slugs and put in the shell, cut out of his right cheek bone. It had been in there three



weeks and he did not know it. It entered his left temple and passed through the eye and under the nose and lodged in the opposite cheek. It was over an inch in length and weighed an ounce and a quarter. The bullet had not touched him, but struck my wrist.

While we were sitting there a bullet struck Captain Winn's tin shoulder-strap, and curled it up like a shaving. Major Babbitt came to me and said the troops behind us were firing into us; I told him to call out to them to stop. He turned to walk back to his place in the line, and was struck in the back by a bullet which passed through his left arm, making four holes. Many officers and men were wounded while we were lying there. Some one came to me and told me that the men were out of ammunition, and I ordered them to fix bayonets and stay where they were, knowing that more would be killed in getting off than in waiting until dark. At one time I saw three rebels coming down the hill in front of us, trying to get to the rifle pits or to the stone wall. I took a rifle from a corporal, and intended to shoot at them, but as I put the gun to my shoulder they had disappeared. The corporal saw them, and reaching over my right arm took hold of the rifle—I still had it to my shoulder—and pointed it at the men. As he was doing this trying to point them out to me, a bullet passed under my arm and through his heart, and he fell dead against my foot. Some little time after dark an aide came on the field and asked if I were there, and when he found me he told me to take my regiment back to their quarters in town; I called out to fall in, and the men all formed in ranks. Just as they were formed, some one, I think it was Lieutenant-Colonel Mitchell of the Fifty-first New York, called out "What regiment is that?" and I answered, "The Seventh Rhode Island," and he cried out in a loud voice, "THREE CHEERS FOR THE SEVENTH RHODE ISLAND!" The rebels heard the cheers, which were given by the whole line in that vicinity, and fired a volley that sent many of my men to their last homes. We were standing up, and they had a fair shot at us, though it was too dark for them to see us distinctly. As we turned to march off the field we went outside of a fence, and many wounded were lying about. As I passed one poor fellow he said, "For God's sake give me some water." I thought at first I would keep on and let some of the men behind me give it to him, but I could not do it. I went back and gave him my canteen, and have never heard of him since. It was not a pleasant thing to turn back on to that field, and I think I hated to do it worse than anything I did that day or ever did. We marched back to the street where we slept the night before and I took my same quarters.

I threw myself on the bed, and was about as blue as ever I was, I guess. I was the only one in the room of the eight or nine who had slept there with me the night before. Sayles was killed, Babbitt and Page and the sergeant-major were wounded, the two doctors

were in the hospitals attending to the wounded, the chaplain had gone across the river, and Mighels had gone with his chief, Sturgis, and I was alone. On the morning before the fight I had given my watch to the doctor, Harris, and he had given it to his attendant, Frank White. I had hired a very bright little colored boy in Washington as a servant, and had left him in camp with another servant. I was somewhat surprised to see him come into my room this evening, with the man who took care of my horses. I supposed the battle would be renewed in the morning, and knew if it was it would be at least as bad as it had been that day, and that my chances of getting through were slim, so I told Bob that if anything happened to me, to go home to Rhode Island and my mother would take care of him, to which he replied in a reckless sort of style, "I ain't goin' to Rhode Island, but if you get killed I am goin' to have your watch—Frank White shan't have it." I was rather surprised at such devotion and let him look out for himself thereafter. He became quite noted afterward as the boy who picked up the knife with which the assassin attempted to kill Mr. Seward. His name was Bob Wilson; he was a pretty good boy, but left me soon after the fight. We were without ammunition and there was none to be had that night, so the men slept on their arms in the street. We did not get ammunition until quite late in the day, and when it did come General Nagle came with it and told me that General Burnside was going to take the Ninth Corps and charge the heights, leading the assault in person. That was his intention at the time, and he was only prevented from doing it by General Sumner. Such a charge at that time simply meant annihilation for the corps. We made ready for the charge, but fortunately it did not take place, and we remained in the street all that day, the 14th. In the night we were put on picket, and were among the last to leave the city.

On the night of the 13th, after we came off the field, I laid down for a while to rest, for I was pretty well tired out. I weighed at that time about 260 pounds, and was handicapped with a saber, overcoat, three days' cooked rations in my haversack and a six-shooter; rather too much to run any great distance with, or to carry for any great length of time. After getting a little rested and some supper, I went to the church that was used as a hospital. The rebels had seen the lights in the building and had fired two or three shells through the roof, which had the effect to put out all lights, except a few candles that were kept lighted in the pews and on the floor, and by this dim light the surgeons were working. As I entered the door a man spoke to me; it was a soldier named Simmons, from Olneyville, the one I had seen shot in the head when we first went on to the field. I spoke to several, and Major Babbitt heard my voice and called to me. I was not used to the dim light and could hardly make my way through the church, on the floors of which were many wounded. When the

major called I could not tell where he was, but answered and asked him where he was. He replied, "In the last place you ever expected to see me, in the PULPIT, by Jove." I worked my way to him and found him lying in the pulpit and as comfortable as could be expected. He was in splendid spirits and I hoped he would soon be well. He was moved to our old camp with the other wounded, but was soon sent to Washington, and died just before reaching that city, I believe. He used to get nervous nights, and would send for me, and I have frequently gone to his tent and sat with him until daylight. He always seemed positive that he would recover, and was anxious to get back and give them another trial. He was a good officer, and a brave man and a good companion, and I missed him very much. I sent Captain Stone of my regiment on to the field after Colonel Sayles body, and it was shipped home to his family. I at once appointed Captain Church, lieutenant-colonel, and Captain Tobey, major, and they were commissioned as such by the governor.

The musketry fire was very heavy all day, but after dark it gradually ceased, and during the night there was only an occasional shot. It was at this time that Stonewall Jackson is said to have proposed to General Lee to charge the city with his corps, but which was disapproved by Lee. What the result would have been it is impossible to say, but I believe he would have been repulsed, unless the greater part of our men were without ammunition, as I was. While on the field there was a constant stream of bullets passing over us; as they passed close to one's head they made a noise, very short and sharp, a sort of "tst", but when farther off would hum or sing. The shot and shell were poured on to the plain all day long. When the shells exploded near, or on, the ground they made a noise similar to the rise of a covey of quail; there would be a "pop" and then the whir and flutter of the pieces of shell, that sounded very much like the noise made by the wings of a quail. I saw one shell strike the ground immediately under a man's body, as he laid on the ground, and it threw him nearly two feet in the air, and I suppose killed him instantly, although it did not explode. Many officers and men who were not wounded had their clothing torn or were struck by spent balls. Of these I remember Captain Winn had his shoulder strap shot off, Captain Tobey had a bullet through the leg of his trousers. I was hit on the wrist and in the left breast; when I was going on the field I was struck by a bullet that did not have force enough to penetrate my overcoat and other clothing, but made a black and blue spot on my left breast, about as large as a half dollar. Captain Rodman was a brother of General Rodman, of Rhode Island, who was struck in the breast with a piece of shell and killed at Antietam. Captain Rodman of my regiment was struck by a piece of shell in exactly the same place, and though he was badly wounded he recovered. Captain Remington had his jaw smashed by a bullet, causing a very bad

wound. Lieutenant, (now Judge), Wilbur, of Providence, was shot through the thigh. Captain Kenyon was struck by a piece of shell on the left leg and had his foot sprained or broken. The right side of my overcoat was covered with blood of Colonel Sayles, and the left sleeve of it was soaked in the blood of Lieutenant Page, whose head rested on it when he fell from the wound in his temple, and the front of my coat was bloody from laying down on the ground where blood had fallen. The quartermaster-sergeant of the regiment exchanged overcoats with me after the fight, and I lost the coat, not thinking that I should care for it, but I should value it highly if I had it now.

Col. George H. Brown, Twelfth Rhode Island Volunteers, was in the fight and told me of a horrible sight he witnessed. He said that in rear of one of the small houses that were on the left of our position on the field there was a cistern in the ground, that soldiers had torn the top off and dropped in there for protection; they were principally wounded men, and the cistern soon became too crowded for the men to stand, and that they then pulled the weaker down and stood on them. At the time he saw them the cistern, which was probably eight or ten feet deep, was nearly full, and that the men were fighting and pulling each other down so as to keep their own heads above the dead and dying, or to keep from being hauled down and trampled to death. I did not see the place, but it must have been one of the most horrible sights ever witnessed on a battle-field. During the thickest of the fight, and when the air seemed full of bullets, I saw a black horse with saddle and bridle run along between our lines and the rebels, and, I think, back again, and then turn and run off the field, apparently untouched. There was a big black Newfoundland dog belonging to the Fifty-first New York that stayed on the field all day, and when I saw him he was all right, but I believe he was killed later in the day. There was such heavy firing that there was very little moving about on the field. When troops got as far to the front as they could go they laid down and generally remained there, though there were several attempts made during the day to charge the rebel position, but the efforts did not amount to anything. I saw but two general officers at the front that day; General Hooker was pointed out to me as he rode toward our line on our left. And I saw and spoke to General Griffin of the Regular Army, just at night, and asked him if we could not have the artillery play on the rebel batteries, but he said, "No."

As the regiment was marching through the streets to go into the fight the morning of the 13th, I stopped and let them march by me, and as they passed I counted them, and made out about 590 enlisted men, and nearly a full complement of officers. Our loss as reported the next morning was one lieutenant-colonel, one major, four captains, three lieutenants and 211 enlisted men—nearly forty per cent. of the command. The number of enlisted men killed and wounded, or so reported, was considerably diminished by later reports.



PRIMARY CONDITIONS FOR THE SUCCESS OF CAVALRY  
IN THE NEXT EUROPEAN WAR.

LECTURE BEFORE THE BERLIN MILITARY SOCIETY, BY LIEUT.-  
GENERAL VON PELET-NARBONNE.

(Translated for the *Journal Royal United Service Institution*.)

THE American Civil War of 1862-65, however, is of special importance, offering, as it does, peculiar opportunities for a critical examination of the question with which we are concerned. The only difficulty lies in gauging how far that war justifies one in drawing conclusions, so different would be the conditions under which war would be waged in Europe. If from one point of view the lessons of the war are of great value, as resulting from a wholly unfettered judgment, since with neither antagonist had tradition or ordinary routine, which are often opposed to real progress and actual requirements, anything to say in the organization and handling of the mounted forces; on the other hand, the surroundings were so different to those on a European theater of war, and the armies so dissimilar to those we can call out, that it is hardly possible to draw any safe conclusions from the experiences gained during it. Although there was a wide dissimilarity between the Federals and the Confederates, the material on either side, both in men and horses, was quite different to ours. While the South possessed in its sport and *shikar*-loving population and in its well-bred horses a material which is of greater value than that at our command, the North had neither suitable men nor horses, and only in the closing years of the war were they able, by dint of practice and by enlistments in the Western States, to form some kind of a useful cavalry. Under such conditions as obtained in the Southern States—as will nowhere be found in Europe—it was there possible to improvise an excellent mounted force, deficient, however, in the attributes which would have made it fit to take its place in line of battle. For this both the troops and the leaders were

wanting in practice and experience. In the North, where the raising of cavalry at first led only to disastrous results, far more was accomplished in the way of improvisation of artillery (as by the French Republic in 1871), and this arm soon showed a great superiority over that possessed by the South.

How little one can measure such unique, brilliant performances—as some of those by the Southern cavalry—by the European standard we understand from the raid made by Stuart in October, 1862, into Pennsylvania, with 1800 horse and two guns to rear of the whole hostile force, during which, owing to the wealth of horses possessed by the country, he was able to remount the greater number of his men, who then marched on, riding a new horse and leading the old one. The Northern cavalry also followed suit, when, at the end of April, 1863, they burst into Virginia under Stoneman and took 800 horses from the Virginian farmers.

The fact that these raids were successful invites discussion as to the possibility of this sort of warfare in a European campaign. I cannot altogether agree with Lieut.-Colonel Frhr. von Freytag in his "Studien über Kriegführung auf Grundlage des Amerikanischen Sezessionskrieg," when he states that "to-day no army has such a preponderance of cavalry that it would occur to any leader to use it, as here, in partisan warfare, and thus expose it to losses which would render it unfit for use in some important operations." It is clear that in a hostile country the question would always arise in regard to such operations, as to how many of his mounted men the general in command could count upon seeing again, and whether the venture seems to promise adequate results. It is very plain that in 1870-71 our cavalry, as also that of the French, was, owing to faulty armament and training, quite unfitted for such operations, and on a European theater of war raids, as carried on by Stuart, could hardly be decided on if cavalry divisions, organized as such, are to be ready for use, as they now are expected to be. But were it possible, as a condition of success, to arrive at greater independence in the cavalry divisions as self-contained fighting units, it is difficult to see why these should not find opportunities for operating against the enemy's flanks and communications (which in these days of gigantic armies have increased in importance and vulnerability) as well as for work of other kinds. If this is not admitted then we renounce getting the full value of the element of speed, whereby cavalry can appear quickly and again disappear from view, while the provision of more self-contained fighting units will, naturally reduce the risk of increased losses. I consider some of these raids to be perfectly feasible in European warfare under similar circumstances—such a one as that, for instance, which the Northern general, Stoneman, carried out with 3500 horse between the Rappahannock and James River in April, 1863, and which occasioned immense loss to his opponent. The question of the utility of such a raid as an isolated case must be decided on its merits. I am now merely discussing its practicability. For on the other hand, it is undeniable that such raids had, not infrequently, disastrous results, as when, for instance, in Wheeler's march with the Southern cavalry at the end of August, 1864, to destroy the railway at Chattanooga, the achievement bore no proportion to the sacrifices it entailed, while, worse still, it robbed General Hood of the bulk of his cavalry, with the result that his information was faulty, and being threatened in rear, he was compelled to fall back. Naturally the carrying out of such operations in one's own or in a friendly



country is considerably easier than in a hostile one, and it appears to me unquestionable that had the French cavalry been better organized and trained in the second part of the war it would have been able to operate with considerable success against the inferior *etappen* troops holding our lines of communication.\* One can imagine what an influence the French cavalry would have exercised upon the German operations had it succeeded in cutting the railway between France and Germany for any length of time.

A characteristic of the cavalry actions of the war of secession was the constant employment of dismounted fire. The reason lay in the fact that the Southern horsemen from their open-air life were mounted sharpshooters excellently trained in the use of the rifle, but wholly unpracticed in the close-order movements of the attack *as cavalry*; the thickly wooded country, however, in which great battles were fought out, necessitated the mounted riflemen form of action if the cavalry were to be anything but mere lookers-on. No doubt also for the same reasons, it happened that fire-action was frequently employed when the occasion was unsuited for it, as when Stuart, dismounting his men to attack Buford's brigade in the Brandy Station Battle, was placed in grave straits by the sudden appearance, in his rear of a mounted brigade of the enemy. Against any other foe he would have paid dearly for his faulty tactics. In spite of the frequent employment of dismounted action, these horsemen had about them nothing of the character of mounted infantry. They looked upon themselves as cavalry, and proved that they were such by the excellent use they made of their sabers in various attacks carried out by individual squadrons and regiments.

On the 8th of June, 1863, Stuart did employ his men in mass under General Lee in an important operation entirely as a mounted force. At the same time the men were so accustomed to fight on foot that for them it was an every-day affair, and their operations—such as that where Stuart carried out a night attack, dismounted, at Catlett's Station, on 22d August, 1862—may be taken as models for that form of action. Over and over again the cavalry entrenched themselves to hold certain points, as did Sheridan, the best of the Northern generals, in order to secure his communications at Old Cold Harbor on 31st May, 1864.† If, then, the use of cavalry in this Civil War cannot, in many respects, be looked upon as a model for us we still learn from it what can be done by a cavalry to whom fighting on foot comes natural, and which has equipped itself in every way for the particular exigencies of that theater of war. In any case, one must remember that *from the days of Napoleon until the present time in no single campaign has cavalry exercised so vast an influence over the operations as they did in this war*, wherein, of a truth, the personality of the leaders has been very striking: such men as, in the South, the God-inspired Stuart and, later, the redoubtable Fitzhugh Lee; and on the Northern side, Sheridan and Pleasonton. Stuart, the personification of heroism, became also the pioneer.

\*See Cardinal v. Widdern's "*Der Krieg auf den rückwärtigen Verbindungen des deutschen Heeres*, 1871."

†We see everywhere in this campaign that the constant employment of dismounted action in no way destroyed the dash of the mounted man. When considering the Russian cavalry in the last Turkish war we shall find the exact opposite to be the case.



## ON THE RETIRED LIST.

(N. Y. Evening Post.)

THERE is a fine old gentleman who passes my window daily whom I am constantly tempted to salute. He walks on, erect and active, shoulders straight and true of line, step firm and regular, and is of that clean-cut, well-dressed type which defines his social position and expresses his place in the world.

The pure whiteness of his gray hair, the clear color in his cheeks, even the irreproachable gloss of his well-brushed hat are all indications of the man. I need no one to tell me that he is on the retired list, although all of the man, body and mind, are fit for active service, but he delights me by his determined gait, his unmistakable respect for himself and his own powers, though his threescore and ten have "shelved" him.

He goes to his daily haunt—office, club, reading-room?—wherever he elects to spend the midday hours, with great regularity, and always with the same energetic look of pleasant occupation. You would know precisely how he would meet a friend should a familiar face present itself at the corner: You could measure to an exact comprehension the warmth of his steady grasp, and with your mental ear hear his cheerful greeting.

I wonder so often where his active years were passed, whom he controlled and what he influenced. He has the unquestionable air of one well used to command, and accustomed to obedience; in an emergency he would be listened to by a crowd, but now—I am sure of that—he has to make himself believe that he has duties and be very busy about them. To be an idle, useless man is impossible to him.

That great and, to me, most interesting body of men and women who have reached a place in their life's journey where the word of command is distinctly given to "Halt!" though apparently withdrawn from the helpers of mankind, and supposedly passing out of sight into the quiet places where they await the close of unimportant lives, are sometimes among the most valuable members of the community, and also, alas, are as often found among the most pitiable of our brethren. I would wager a rash sum that my friend of the opposite side of the street never passes a day that is profitless. Some one turns a grateful look upon his pleasant face before the sun sets.

It is said that there is no man of less importance than an ex-President of the United States, yet we have an eminent example of a man living among us whose words command instant, respectful attention; and whose name guarantees the honest intent of the enterprise to which he lends it. Retired, indeed, is his domestic, studious life, but he can never cease to be a great man among his countrymen, even though some of them may be his enemies.

There is no real reason why the relinquishment of office should include sinking into the dulness of an objectless existence, or that the retirement of men and women ageing with the lapse of years, should mean that they felt themselves of no use in the world where experience and sagacity are so sorely needed. The mere tempering of impetuosity by the lessons of their lives, learned in the stern schools in which we are all taught, is in itself no slight contribution to the happiness of the young and those just entering into the more earnest work of life. These elders who are able to sympathize and to comfort; those who can tell of storms passed in safety, bring such assur

ance to untried hearts; these men who can help their young brothers to retrieve lost ground and assure them that one defeat does not mean destruction to hope and ambition, are almost always found outside the battle-grounds. \* \* \*

These fine, disciplined, thoroughly taught men of our army and navy now stepping out of the ranks to make promotions possible to their younger comrades, weary of long detention in the lower grades of the service, carry in their well-furnished brains that which nothing can give but actual experience, and in cases of extreme emergency, the majority of them could give to their country what no other men could. Genius in war times may accomplish wonders, but demonstration of positive results is what tells most surely. Who of all the Japanese heroes out-weighed the value of that aged engineer, who had been reckoned too old to tax with the terrible strain at Port Arthur? Though he labored with a sore heart, knowing his brave son had just yielded up his young life, and handicapped by the physical restraints of an old man, his achievements were among the chief wonders of that wonder-making fight. I am ashamed to have forgotten his name!

It is well that the old make way, and that they who are most in touch with the marvelous revelations of modern science should bring them to the proof, but he who carries in his silvered head a brain which has digested the knowledge and experience of that which is incontrovertibly proved, has no need to feel that he cumbers the ground, and that he has to walk humbly as among those for whom his country has no use. He rather has reason to be proud that he has earned a rest alike honorable and honored. Keeping himself abreast of the times, he will find that he is able to solve many a so-called new problem already worked out under old conditions, and his judgment will strengthen many a doubtful decision. It lies in the man himself how far retirement means uselessness. \* \* \*

It seldom happens that at once the step taken is as abrupt and decisive in family life as in military or the higher offices of the masculine profession. Yet sometimes circumstances do so sharply define the retirement from parental offices of government and importance. Not infrequently the father and mother are too wise, too truly loving, to attempt to establish a new government of which the ruling is to be carried on under two queens. The bee-hive tells us better things than to cherish any such fallacy. The gracious retirement from office of the dowager queen often places her on a new throne from whence her reign will be as full of power as of old, though wholly from a new basis.

\* \* \*

But old homes and unchanged firesides are rare in this land of unsettled interests and cravings for new and greater things; and, oftener, we see, as in a very recent public instance, the luxurious dwelling abandoned and the young wife taking the mother's place. The moral and emotional conditions, however, are unchanged, whatever the circumstances may be. It rests with the retired officer to dignify and adorn the new position. If the scepters laid down were symbols of government and authority, the new duties they are to discharge require no tokens of royal prerogative. Sympathy, tender participation in both joy and sorrow, wise counsel in perplexity, enlightenment of ignorance when trouble threatens, need no insignia of authority; open arms and a loving heart are the heraldic bearings of a father

and mother, who have ceased to control or to minister to lives that have found the entrances to "their destined end and way." \* \* \*

All forms of mental and physical disability present themselves to us as we run our eyes down the long, the endless list, that makes up the roster of the retired lives of our fellow men and women. With a grotesque suggestion it brings back the motley crew gathered by the ancient military laws of New England. "General muster" and "general training-day," the germ of our fine State militia service, kept its feeble embryonic life from expiring by the calling together the un-uniformed men to whom the country looked for help in time of need.

A strange, fantastic gathering it made, and it was a fête-day to the country, ending in the devouring of the best products of the famous housewives, who invariably accompanied their sons and husbands to the field of military instruction. Tall and short, old and young, lined up, and the brigadier-general, in the glory of a uniform and a hat and feather, gave orders to men carrying any and every form of firearm. The stalwart, nobly developed tiller of the fields stood next the little bow-legged shoemaker; the fine, matured figure of a man of fifty touched elbows with the lad of twenty, who was burdened with his clumsy musket. After this fashion this passing summary of retired lives passes before my close scanning eyes. What service shall they do? Are they to be cumberers and hinderers, or are they ready, alert, bent upon keeping every power at its best, and where they do not find a way open before them, determined to make a path in which they shall be neither loiterers nor impediments?

Circumstances cannot control a free mind, nor displacements stop the course of noble thought and generous feeling, and there is no reason why a splendid corps of the retired men and women should not be a noble army of "reserves" keeping every weapon bright and eager for every chance of duty.

Not alone in the great fields of public service and honor may they be found, but under every roof that shelters ageing lives. The wise scholar who is ready to share his learning—the pastor-emeritus, who, set aside from the pleading of the pulpit, unfolds the consolation of faith in his quiet study—the great man of finance, who stays the too-eager hand of his successor—the father who succors and counsels his son—the mother who strengthens her daughter's heart to bear her burdens of responsibility, and folds her grandchildren's hands in prayer—the sufferer who teaches patience from the weary chamber of pain, all belong to those whose names adorn the "retired list" of humanity.

C.

## WATERLOO.\*

[Appeared in the *Literary Souvenir* for 1831, unsigned; but I have seen the original, dated Feb. 1, 1830. At this time it was the fashion with French writers to assume that the English had already been beaten at Waterloo, when somehow the French got "betrayed." See especially the *Relation* of General Gourgaud, published 1818. In the next generation, Victor Hugo invented the "hollow road of Ohain," to account for the French cavalry not "breaking the English squares."]

\*Apropos of some paragraphs in the July *Bookman* about French and Belgian ideas of the Battle of Waterloo, a gentleman writing from Lancaster, Massachusetts, calls our attention to some verses written by Praed seventy-five years ago. Besides being a neat bit of fun, he comments, they show that the Waterloo Myth is of quite a respectable age. The verses are found, with a note by the editor, Sir George Young, in *The Political and Occasional Poems of Winthrop Mackworth Praed*, and in the *Canterbury Poets* selection from Praed.—*Bookman*.

"On this spot the French cavalry charged, and broke the English squares!"  
—*Narrative of a French Tourist.*

"Is it true, think you?"—*Winter's Tale.*

Ay, here such valorous deeds were done  
As ne'er were done before;  
Ay, here the reddest wreath was won  
That ever Gallia wore;  
Since Ariosto's famous Knight  
Made all the Paynims dance,  
There never dawned a day so bright  
As Waterloo's on France.

The trumpet poured its deafening sound,  
Flags fluttered on the gale,  
And cannon roared, and heads flew round  
As fast as summer hail;  
The sabres flashed their light of fear,  
The steeds began to prance;  
The English quaked from front to rear—  
They never quake in France!

The cuirassiers rode in and out  
As fierce as wolves and bears;  
'Twas grand to see them slash about  
Among the English squares!  
And then the Polish Lancer came  
Careering with his lance;  
No wonder Britain blushed for shame,  
And ran away from France!

The Duke of York was killed that day;  
The king was badly scared;  
Lord Eldon, as he ran away,  
Was taken by the Guard;  
Poor Wellington with fifty Blues  
Escaped by some mischance;  
Henceforth I think he'll hardly choose  
To show himself in France.

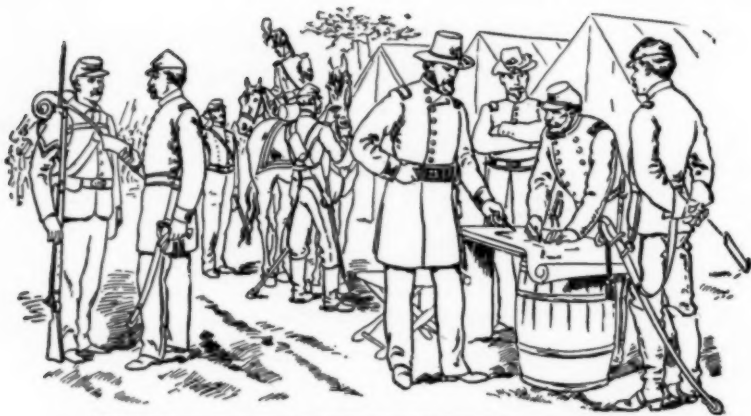
So Buonaparte pitched his tent  
That night in Grosvenor Place  
And Ney rode straight to Parliament  
And broke the Speaker's mace;  
"Vive l'Empereur" was said and sung  
From Peebles to Penzance;  
The Mayor and Aldermen were hung;  
Which made folks laugh in France.

They pulled the Tower of London down;  
They burnt our wooden walls;  
They brought the Pope himself to town  
And lodged him in St. Paul's;  
And Gog and Magog rubbed their eyes,  
Awakening from a trance.  
And grumbled out, in great surprise,  
"Oh, mercy! we're in France!"

They sent a Regent to our Isle,  
The little King of Rome;  
And squibs and crackers all the while  
Blazed in the Place Vendôme;  
And ever since, in arts and power,  
They're making great advance;  
They've had strong beer from that glad hour  
And sea-coal fires in France.

My uncle, Captain Flanigan,  
Who lost a leg in Spain,  
Tells stories of a little man  
Who died at St. Helène;  
But bless my heart, they can't be true;  
I'm sure they're all romance;  
John Bull was beat at Waterloo!  
They'll swear to that in France.





## Comment and Criticism.

### "Athletics in the Army."

Lieut.-Colonel A. C. Sharpe, Thirtieth Infantry.

The remarks of Major Bullard and Captain Hawkins on our lack of system in physical training are just and timely. Field-days, especially as now conducted, are certainly the most irrational feature of our garrison life. They are not only of no benefit to anybody, but they actually result at times in positive injury to participants, and are generally prejudicial to discipline. I have witnessed some of the demoralizing spectacles which Captain Hawkins describes, where officers and men mingled in a howling mob, patting each other on the back, rubbing competitor's legs and yelling in vulgar accord over their champions. And, also, I have left these scenes with serious misgivings, wondering whither we were tending. No wonder, as Major Bullard rather vehemently says, that field-days thus conducted have come to be regarded by most garrison officers as an "infernal nuisance." Of course this does not mean that athletics and field meets should be prohibited, or even discouraged. On the contrary, if properly conducted they may be wisely utilized to develop a desirable *esprit de corps* and to vary the monotony of soldier life. But they should not be required; they should be wholly voluntary, the same as football, baseball and other sports and games. What we need as an official part of our professional training is not athletic competitions in which only a select few can participate, but rational physical culture—a systematic course of training in which every recruit shall be required to take part. It is not the abnormal development the big

biceps or the exceptional development of the more promising and apt that should be sought for. What we should aim to establish is a system of training for the entire unit. We might adopt a collective figure of merit; and that organization bringing all of its men as a whole nearest to the standard will be the best, even though it should not have a single brilliant performer and could not carry off a single prize on field-day, although the chances are that such a company would always win its share. I am glad to see that the Secretary of War has pronounced views on this subject, and that we may rely on his support for all forms of rational, scientific physical culture, and for the development of a system which will reach down to the most needy man, rather than direct its energies to "trying out" these weaker elements until none but the physically perfect are considered worth while.

Captain Hawkins and others have expressed the opinion that the existing routine of duty, including drills, horse exercise, practice marches and the usual fatigue and guard duty, together with "constant practice in minor tactics, will give the soldier plenty of exercise and leave little room or necessity for further care about his physical development." I am unable to agree with this view. Unhappily, our military reservations are very contracted in area, and it is next to impossible to solve any tactical problem within their narrow limits. All that a command larger than a company can do nowadays is to make a march (with no flankers) between fences and cultivated fields, lucky if perchance they can find a patch of ground, free of rent, large enough to pitch camp on. And as population spreads westward this condition will grow worse instead of better. With the exception, perhaps, of Forts Riley, Sill and a few others, this condition already exists at every post between Plattsburg Barracks and the Presidio. With our long-range weapons and extended deployments we have scarcely room enough to-day in any military reservation to "swing a cat." Before we can complete the simplest maneuver we are at the edge of our domains and trespassing on private grounds. Only last week I went into camp about six miles from my garrison, in defiance of a big sign in green paint to "KEEP OUT!" Yes; marching, riding, grooming, policing, guard duty, etc., all contribute a measure of exercise, but they by no means afford the normal development which a systematic course of physical culture affords. If we intend to make this a feature of our training, as all other armies do, we should take it up scientifically and begin to utilize the beautiful gymnasium apparatus which Congress has been so liberally providing the past three years. Every man on joining his company should be measured and charted by a medical officer and then put through a progressive course suited to his needs, until we reduce his excesses and bring up his deficiencies to approach as near as possible to the normal. At the end of each quarter he should be measured again and his interest sus-



tained by a gradual progression to more advanced work. This course would require perhaps nine to twelve months. After attaining a fair development, attendance should no longer be required, but by all means encouraged. And sluggish men disposed to become adipose and soft should be recalled to the work as often as deemed necessary.

Would the multifarious duties now required of the soldier leave sufficient time for this work? Probably, yes. If we reflect on the many rainy days, the muddy roads and wet drill grounds, the storms of winter, etc., which confine us to the dull monotony of indoor drills we shall probably find abundant time to get in the desired gymnasium training. But if not, then let the recruit course in physical culture take the place of two or three drills per week for the first three months, gradually reducing it as he develops.

It is assumed, of course, that every young officer, all at least under forty years of age, who has not enjoyed the advantage of scientific training at school, or whose chart departs in any details very noticeably from the normal lines, would desire to take the recruit course, or at least enough work to bring up his deficiencies. It would be well, indeed, to require all company officers to undergo the surgeon's examination, and if found lacking in any particular to take the necessary work to correct defects. Every captain or lieutenant should be able to go through any hardship or exposure, and to that end to have the same physical preparation as the men he commands.

If such a course is officially adopted it will fall into place as naturally as company drill or horse exercise; and if *properly conducted* can be made more interesting than either. All this, of course, implies additional work and patient, loyal effort for company officers; but it will pay—it is rational (which our present method is not), and it is the only road to success in physical training.

### **"An Organic Unit for Machine Guns."**

**Captain John H. Parker, Twenty-eighth Infantry.**

As the author of the experimental organization used at Fort Leavenworth for machine guns, and recommended as the best practicable system of organization at the present time in our service by the Infantry Board, I would like to correct one error in Colonel Barger's timely and valuable contribution on that subject in the last number of the JOURNAL MILITARY SERVICE INSTITUTION.

Colonel Barger says: "It is submitted that the experiment with machine guns now being carried on by the army has been provided for without due regard to the basic facts hereinabove stated." It is this assumption that it is desired to correct.

In the experience of the United States Army there have been several officers who have successfully used machine guns in more or less important operations; notably in the Bannock-Shoshone Campaign, in the Santiago Campaign, in the Philippine Insurrection and at Peking. Of these officers one was a navy officer, temporarily attached for duty with the army; the others were officers of the Regular Army. It is not known whether any of these, except the writer, had made, or has made since, any special study of the requirements of machine-gun service; but the present writer has done so. If Colonel Barger will get a little book on the subject by the writer and read same carefully, he will find all his own arguments and many more elaborated and fortified by historical examples exhausting the subject up to the date of publication. He will also find that the author is firmly convinced that the best theoretical organization for machine guns for our service is an independent corps, with detachments organized into companies; and this for precisely the reasons Colonel Barger has so well stated.

But in originating the experimental organization used at Fort Leavenworth, and subsequently recommended by the Infantry Board as the one best suited for our service, we were not governed by the best ideal organization, *but by the more practical consideration of what we could get.*

It is vastly more important to have the guns and the men to serve them and the officers to command them, than to stand without them until an ideal, but impracticable, organization can be obtained. There are two enormous obstacles against the adoption of the ideal organization, even in the modified form proposed by Colonel Barger. These are:

1. The inertia, if not actual opposition, encountered in the attempt to get any organization whatever, within the army itself. Notwithstanding that the experimental organization has been tested to the complete satisfaction of everybody who has observed its workings, and has been recommended by the Infantry Board and many important and influential officers for adoption, and requires nothing to put it into actual operation except an order by competent authority, yet it has thus far been impossible to obtain even this inexpensive and practical form of organization and instruction, for the simple reason that it has not been possible to get such an order issued by competent authority.

This is all the more surprising when we reflect upon the experience of France through lack of adequate instruction in the use of her mitrailleuses; when we remember that our own experience has so fully demonstrated the value of machine guns that every other great nation in the world has adopted some system of organization and is causing adequate instruction in their use to be given; still more when

we remember that the value of these weapons is well known to many of our highest administrative officers from personal observation in action.

2. The fact is that legislation by Congress would be necessary to effectuate any such system of organization as Colonel Barger has proposed, or any other than that of auxiliary fragments which has been worked out and favorably recommended by the Infantry Board. To any one who knows the difficulty of obtaining any legislation whatever, even for the most urgent public necessities, this one objection blocks the present adoption of any other system than the one we have worked out, which can be organized out of the men and material on hand, without new legislation, and without any expense whatever.

It is earnestly hoped that the time may come, and soon, when this very important detail of military organization will receive adequate attention, and machine guns may be made a subject of real, practical instruction, with a view to their being used intelligently in action. It is self-evident to students of the subject that, theoretically, the ideas set forth by Colonel Barger ought to govern in this work. But it is also apparent to the writer, who has tenaciously held this subject for many years, and is the author of the existing experimental system of organization in our service, that we must creep before we can walk, and must take what we can get before we can expect to get what we want, and ought to have, in the way of machine-gun organization. It is possible to get the proposed experimental system into actual operation, because it depends solely upon executive action, and if we can convince the proper executive authority of the necessity for such action, no doubt the necessary orders will be forthcoming. It is not possible to get the ideal organization adopted at this time, for that would require Congressional action, which cannot be had.

If the proposed experimental organization can be put into operation, we shall at least begin to have some real, practical instruction in machine-gun use, and we shall begin to develop a few trained officers who will know how to use the guns on occasion—which we have not at the present time. Then as our progress advances, if we are right in our ideas, their correctness will become gradually apparent to others who have not made a special study of the subject, and eventually we may expect enlightened action on the subject as a result of greater experience and development.

Therefore, let all who are interested in the subject stand together for the practical application of some real live instruction through the only system practicable at the present time—that of detachments in and of the infantry battalions. It ought to be under the direction of some one man, in order that it may be made vigorous and effective.

Let us fight for that; and let the future development of the idea depend upon what the future may demonstrate to be the necessities of the machine-gun service

**"Law as Taught at the Staff College."**

**Major D. H. Boughton, Eleventh Cavalry.**

In the January issue of the JOURNAL OF THE MILITARY SERVICE INSTITUTION General Clous, in an able article, takes issue with Colonel Birkhimer in regard to certain doctrines promulgated in the latter's work on "Military Government and Martial Law." The General invites attention to the fact that at the Military Academy Davis's "Military Law" is in use, while at the Staff College Birkhimer's "Military Government and Martial Law" is the authorized text, and that these authorities differ on certain points of law, a condition to be deplored, as it tends to destroy the uniformity and harmony of instruction that should prevail throughout our military schools.

We know of no science, not even music, where the laws of harmony are so refined that notes of discord are never struck. It is not my purpose, however, to discuss the issues raised on points of law, but to invite the general's attention, as well as that of other officers interested in the Staff College, to the character of the instruction prevailing at this institution in the Department of Law.

We fully agree that instruction should be uniform and certain in our military schools. In fact, uniformity and precision are what we are all striving for in the military service. System is essential to the successful working of any machine so complex as our military establishment, but legal instruction at the Point and at the Staff College cannot be judged by the same standards. At the former the students are yet quite young, almost boys, while at the latter they are men full-grown, mentally as well as physically, and therefore a method of instruction applicable to the one would be out of place in the other.

Because a text-book is in use at the Staff College it should not be inferred that such book is regarded as perfect, and always a correct expositor of facts. Where can such a work be found?

Elsewhere I have explained the theory upon which instruction is given to the student officers of the Infantry and Cavalry School. When these students pass to the Staff College they are treated as men of mature minds, and the method of instruction is broadened, approaching the idea of original research. Text-books are used and are of course sources of information, but they are more of the nature of guides, whereby is secured a uniformity of instruction so necessary

in an institution of this character, where the course is special and the time limited.

The text-books now in use in the Staff College are Black's "Constitutional Law," and Birkhimer's "Military Government and Martial Law," but these are supplemented by discussions of "leading cases" and references to other authorities, and if a mooted point arises the student is generally able to form a conclusion of his own that is quite satisfactory.

In addition to the above, each student officer is required to submit a graduating thesis upon some important military subject, and to solve problems, the correct solution of which may be of use to him in his subsequent career.

The following problem given to this year's class will serve to give some idea of the method of instruction, and what is meant by the requirement of original research.

#### DEPARTMENT OF LAW,

##### STAFF COLLEGE

#### Problem No. 2. Class of 1905-6.

##### MILITARY RESERVATIONS.

The post of Fort Leavenworth, Kansas, was established in 1827. By executive order dated October 10, 1857, it was reserved and set apart for military purposes, but when Kansas was admitted as a State in 1861 the United States failed to retain jurisdiction over this reservation. By act of the Kansas legislature, approved, February 25, 1875, jurisdiction over that part lying in the State of Kansas was ceded to the United States in the following terms:

"Section 1. That exclusive jurisdiction be and the same is hereby ceded to the United States over and within all territory owned by the United States, and included within the limits of the United States military reservation known as the Fort Leavenworth reservation, in said State, saving, however, to the said State the right to serve civil or criminal process within said reservation, in suits or prosecutions for or on account of rights acquired, obligations incurred, or crimes committed in said State, but outside of said session or reservation; and saving further to said State the right to tax railroad, bridge and other corporations, their franchises and property on said reservation."

1. (a) Are the reservations by the State of Kansas of the right to serve civil and criminal process and to tax railroads and other corporations, inconsistent with exclusive jurisdiction of the United States as understood in par. 17, sec. 8, Art. 1 of the Constitution, and if so to what extent?

(b) Had the reservation been purchased by the United States with the consent of the State legislature, would the saving clause "to tax railroads, etc.," have been binding? Why?

(c) Does the saving clause "to serve civil process for rights acquired, etc., outside the reservation," prevent the State from serving process on the reservation for a *tort* or *breach of contract* committed thereon? Why?

2. December 25, 1874, a soldier shot and killed a comrade on the reservation; the homicide was manslaughter; in what courts and under what laws could the criminal have been tried?

3. Had this homicide occurred a year later, in what courts and under what laws could the criminal have been tried?

4. A civilian employee residing on this reservation was the owner of a vicious dog; he was aware that the animal would sometimes attack people, nevertheless he permitted the dog to run at large, and the latter attacked and killed a child:

(a) Can the owner be punished criminally, if so in what courts, and by what laws will his punishment be measured?

(b) Had a soldier been the owner of the dog, where could he have been tried?

(c) In general what is the law for punishment of offenses committed on a military reservation (exclusive) where no penalty has been prescribed by Congress?

5. A citizen of Leavenworth breaks or opens the fence inclosing the reservation along Metropolitan Avenue and drives his cattle upon the reservation for grazing; can he be punished criminally, if so in what courts and what is the limit of his punishment?

6. Two residents of Leavenworth are driving along Grant Avenue on the reservation; one, through carelessness, collides with and injures the vehicle of the other:

(a) Is civil suit maintainable for damages, if so where?

(b) The driver whose vehicle is injured assaults and severely injures the other; have the Kansas courts jurisdiction of this crime?

7. A soldier stationed at Fort Leavenworth dies; among his effects is found a document purporting to be his last will and testament; it is signed by the deceased, but there are no subscribing witnesses; in the testament he bequeathed, among other things, one-half of \$2000, which he has in bank in St. Louis, to his wife who lives on the reservation, and the other half to his mother who lives in Ohio; if you were his company commander how would you proceed?

Generally, aside from military law, what municipal law is in force on a military reservation?

8. The State of Kansas has the right to serve civil and criminal process on this reservation:

How may criminal process be served for the arrest of the following persons?

(a) A civilian teamster driving along the road on the reservation.

(b) A soldier playing ball on the parade ground.

(c) A soldier at drill with his company.

(d) A person within a government building.

In what manner would civil process be served upon the above persons?

Answers to the above will be submitted not later than March 31, 1906, after which date the problem will be discussed in the classroom. Write answers only, each opposite its serial number, and use paper of legal cap size.

The theory of martial law is not taught at this school from the viewpoint of deciding by what authority it may be declared, but as a *fact* which must be recognized when it actually exists, and treated accordingly, under the great law of necessity.

As a matter of fact the term "declaring martial law" is really misleading under our form of government. Strictly speaking, martial law cannot be called into existence as a *matter of legal discretion* by any department of the Government. The Constitution has given them no such power; but, as a *matter of fact*, its existence can be

recognized and declared or announced by the Government in order that all concerned may conduct themselves accordingly.

Legally, too, when considered in this light, it would seem immaterial which department of the Government recognized the fact that martial law existed, but as the executive is charged with the execution of the laws, and martial law means a suspension of the same, he will be the one who will first have knowledge of the existence of a state of affairs which we call martial law, and it then becomes his duty to announce or declare the same, and to act accordingly.

Regarded in this light martial law means that the ordinary laws have been forcibly and unlawfully suspended, and that the Government, in order to restore the same, has been compelled to use its strong arm—its reserve power—military force.

In regard to whether Congress is expressly empowered "to provide for the common defense and general welfare" of the country, the general may rest assured that the correct law is taught on that point.

U. S. STAFF COLLEGE. FORT LEAVENWORTH, KANSAS.







## Reviews and Exchanges.

### Half Century Record of the Class at West Point, 1850-1854.

THE following is the introduction to the biographical notes and tables of the Class Monograph, in preparation by Brig.-Gen. Henry L. Abbot, United States Army.

The class of 1854 was graduated long enough before the Civil War to cause its members, trained in frequent Indian outbreaks and qualified by experience in the field, to serve in grades entailing special exposure on the line of battle. Many of its members held such rank, and the official records show for the class a larger list of killed and mortally wounded in action than for any other that ever left the Academy, except for that graduating in 1841, which lost six graduates in the Mexican War and eight in the Civil War, or a total of fourteen. The class of 1854 lost twelve graduates and three non-graduates in the Civil War; and among the former was Greble, the first officer of the Regular Army to lay down his life in the conflict. Another non-graduate subsequently met his fate in the Modoc War, making a total of sixteen of the class to die from wounds received in battle.

It has been charged against the Academy that its cost to the Government is excessive, since the cadets that fall out by the way are not commissioned in the army, and, consequently, can render no return to the Government for the sums expended in their education, more or less complete. Of the class entering in 1850, having a total of 102 names on its rolls, forty-six were graduated in 1854 and three in 1855, leaving fifty-three who failed to receive the diploma. It has seemed to me to be a matter of interest to trace, so far as practicable, the war records of these non-graduates, and thus to determine whether their military education received at West Point did or did not bear fruit in the great war.

It has been my habit during all these years to preserve any item which came to my knowledge relating to members of the class. In this present study I have sought and obtained similar items from my classmates. The official records of the war, with its admirable index referring to every name contained in any of the many volumes, has rendered it comparatively easy to trace individuals holding rank in

the higher grades. The "Historical Register and Dictionary of the Army," prepared by Francis B. Heitman, in 1903, the "Bulletins of the Association of Graduates," and numerous histories and encyclopedias of the war, have afforded great assistance. Correspondence with the War Department, with the adjutants-general of several States, with the Pension Office, with postmasters at many localities, and with individuals whose addresses have been furnished by the above, has supplied many missing links. The results of the study appear below. While it is hardly possible that errors have been wholly avoided, it is believed that none of serious import will be found.

The West Point record of the class may be summed up briefly as follows: The total number that received conditional appointments, and including twelve turned back from the class above, was 111. Of these nine failed to pass the entrance examination, reducing the true class aggregate to 102. During the four-year course seven resigned, five were dismissed, eighteen failed to pass the first January examination, eight the next June examination, four the second June examination, eleven the third June examination and none the final June examination. The number graduating in 1854 was thus reduced to forty-six, of whom six came from the class above. Of the forty-one who failed to pass the examinations, nine were turned back to the next class and three of them were graduated in 1855. One of the graduates, Levi L. Wade, was so ill that he failed to receive a commission; indeed, he died in September, 1854.

In respect to the non-graduate members the facts, more fully recounted in the biographical notes, may be given briefly in tabular form. As stated above, of the twenty-six known, or believed to have taken part in the war, four lay down their lives in action. These statistics abundantly demonstrate the fact that the non-graduates constitute an educated and precious reserve which can be counted upon in time of need to perform the important duty of training and leading our volunteer armies. The names in italics in the table are those of the officers killed in battle.

*Non-Graduate Members, Fifty-three in Number.*

Wholly untraced .....	17—Twelve of them at Academy six months or less.
Died before the war .....	3—Daniell, Guion, Splane.
Did not take active part .....	3—Bennett, Fonda, Scott, W. P.
Service doubtful .....	4—Browne, Jordan, Lashbrooke, Widup.
Attained grade of colonel .....	9—Black, J. L., Colquitt, Crooks, Drum, Harrington, Hyde, Sherburne, Wood, Wright, T. F.
Attained grade of lieut.-colonel ..	4—Crawford, Green, Leech, Spratt.
Attained grade of major .....	3—Brown, S. C., Kearney, Wilson.
Attained grade of company officer	6—Annan, Bursley, Clay, Hayne, Kenan, Montgomery.
Grade uncertain .....	4—Hollaway, Jesup, Robertson, Thomas.
Total non-graduates .....	53

The biographical notes are restricted to individuals not given in full in General Cullum's Register, that is to non-graduates and to those who took part with the Confederacy, except in the case of those killed in battle, which are more fully treated, even on the Union side, than in his register. The happily reunited popular sentiment, both North and South, sustains the little band of survivors who separated

at West Point half a century ago in being proud of the gallant and honorable service of their classmates, whether rendered under the blue or the gray. Indeed, all graduates will recognize that among ourselves the ties formed by four years of such intimacy as exists at West Point were never weakened by the course of events, even when we found ourselves arrayed in hostile ranks. Each side gave the other credit for following the dictates of duty as they appeared to the individual mind and conscience. The deep-seated sectional misunderstanding which led to the war had no place in the old army. Whatever may have existed among the members in boyhood had been eliminated by attrition during the years spent at West Point.

The following tabular summary is based on the statistical tables. Those of the class who served on the side of the Union appear on two lists, one of the regular and the other of the volunteer service. The highest individual rank attained on either is here shown. Fifteen names appear on both lists and twenty-three on only one. The relatively large number in the lower grades on the Union side is explained by the fact that twelve held only their regular commissions. At least seventeen of the class are known to have been wounded, not mortally, some of them several times.

*Highest Rank Attained in the War.*

	Union Side	Confederate Side	Doubtful	Class
Lieut.-general .....	..	1	..	1
Major-general .....	1	4	..	5
Brig.-general .....	3	4	..	7
Colonel .....	13	6	..	19
Lieut.-colonel .....	4	4	..	8
Major .....	2	1	..	3
Company officer .....	15	4	1	20
Not of record .....	..	3	..	3
Totals .....	38	27	1	66

The present status of the class may be summed up as follows: Of the 102 members, ten died before the war; eighteen died during the war; ten have died since in service, and twenty-one in civil life, making a total of fifty-nine deceased. Information is lacking respecting twenty-four. Nineteen are known to be living, of whom nine are in civil life and ten in service, all of the latter being on the retired list with the rank of general officer. The following are the latest addresses of the former:

Chapman, Alfred B.  
Crooks, William (Colonel)  
Fonda, Peter  
Green, Wharton J. (Lieut.-Col.)  
Haynes, Lawrence B. (Captain)  
Hyde, Breed N. (Colonel)  
Lee, G. W. C. (Maj.-Gen.)  
Lee, Stephen D. (Lieut.-Gen.)  
Montgomery, James G. (Captain)

Chapman Place, San Gabriel, Cal.  
25 Sherburne Ave., St. Paul, Minn.  
101 Fage Avenue, Syracuse, New York.  
Fayetteville, North Carolina.  
Woodville, Wilkinson Co., Miss.  
P. O. Box 66, Pottsville, Penn.  
Burke P. O., Fairfax County, Va.  
Columbus, Miss.  
Augusta, Georgia.

H. L. A.